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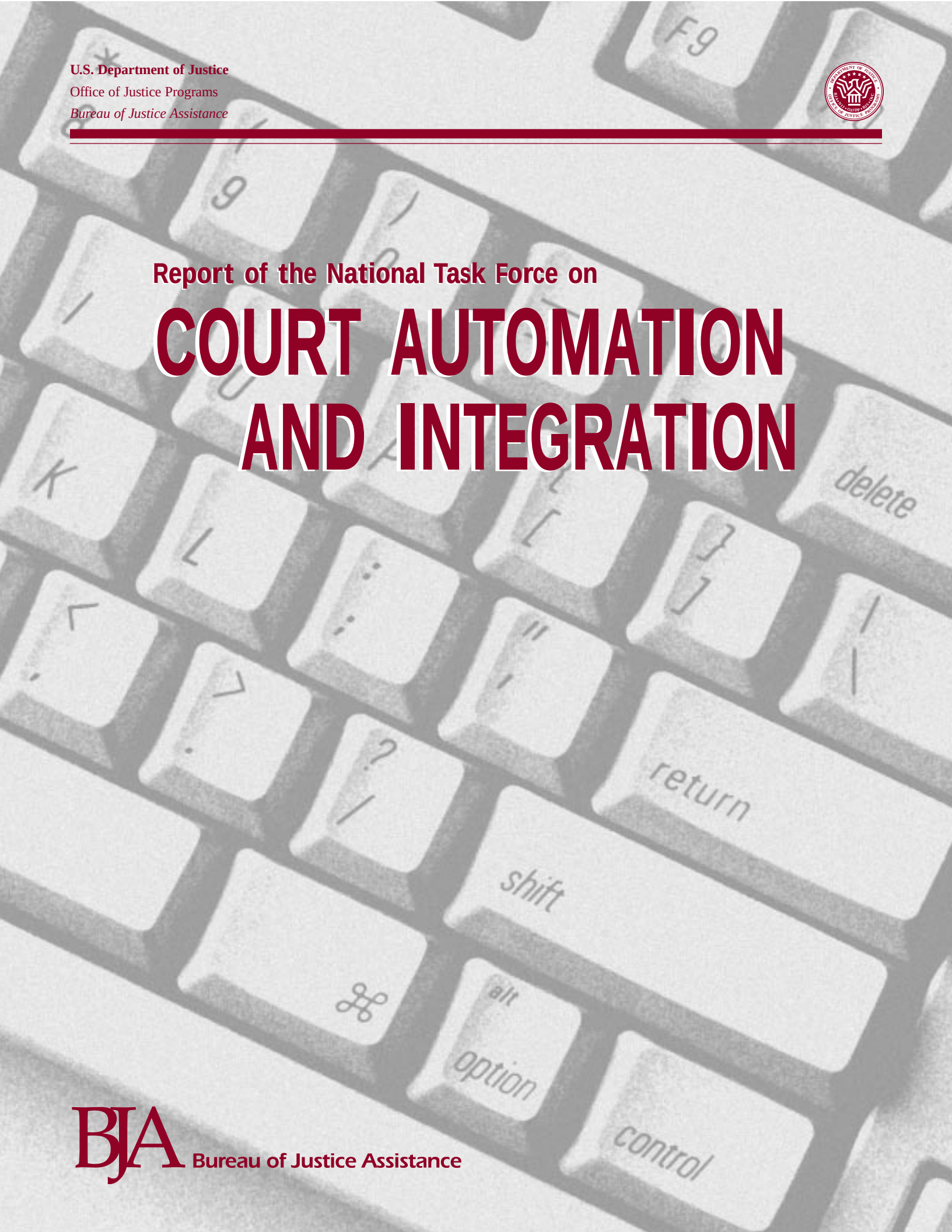

Report of the National Task Force on

COURT AUTOMATION AND INTEGRATION

BJA Bureau of Justice Assistance

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Report of the National Task Force on Court Automation and Integration

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Foreword

The Bureau of Justice Assistance (BJA) is proud to sponsor the Court Information Systems Technical Assistance Project, a multiyear effort to develop practical resources for courts to automate and integrate their information systems, within the court, between courts, and with other justice agencies, such as law enforcement and corrections. The project is a national partnership between BJA and four criminal justice information technology and court organizations: SEARCH, The National Consortium for Justice Information and Statistics; the National Center for State Courts; the National Association for Court Management; and the Conference of State Court Administrators. The no-cost assistance provided under this project focuses on the needs of courts as they automate and integrate their information systems and builds on the National Technical Assistance and Training Program funded by BJA and operated by SEARCH since 1985.

Why do the courts need this assistance? Information system automation and integration will improve decisionmaking throughout the justice system via enhanced data quality, better communication between justice agencies, and expanded capabilities that result from the increasing amount of data available. If recent activities surrounding the Court Information Systems Technical Assistance Project are any indication, the nation's court community has a tremendous interest in the benefits of automating and integrating information services. Court system integration is particularly timely, given the passage of S. 2022, the Crime Identification Technology Act of 1998, in October 1998, which authorizes $1.25 billion over a 5-year period beginning in 1999. Under this act, state grants will promote the integration of information and identification technology. Other national integration initiatives of the U.S. Department of Justice also lend credence to this effort.

As part of this project, a National Task Force on Court Automation and Integration was formed in 1997 to identify the challenges to court automation and integration, develop recommended strategies to address these challenges, and build an information infrastructure necessary for effective state and local court system integration. This document reports the task force's efforts, its findings, and recommendations. The task force took a "snapshot" of state and local court automation and integration status in early 1998. From this information, the task force developed a set of significant findings and recommendations that support electronic information exchange within the courts community, between the courts and other

justice agencies, and between the courts and treatment and service providers. We hope these findings and recommendations aid courts at the state, county, and local levels in their integration efforts.

Nancy E. Gist
Director

Acknowledgments

This report reflects the collaborative efforts of members of the National Task Force on Court Automation and Integration and the staff of SEARCH, The National Consortium for Justice Information and Statistics, and the National Center for State Courts (NCSC).

Special thanks go to SEARCH staff Amir Holmes, who was responsible for report writing and production coordination; Kelly Harris, who helped edit the report and prepare the sections on technology; David Roberts, who prepared materials on security and privacy, guided development of the findings, and recommended strategies; Owen Greenspan, who prepared the first draft of the report and reviewed subsequent iterations; Eric Johnson, who prepared the executive summary and edited the report; and Twyla Cunningham, who edited the final report and prepared it for publication. Fran Bremson served as project manager and oversaw the report's development.

NCSC staff who participated in the report's development were Larry Webster, who wrote the court automation and organization sections and served as chief reviewer of the overall report; Lin Walker, who conducted the state court automation survey and helped prepare the court organization materials; Karen Gottlieb, who directed the nationwide court integration survey with the help of Will Willis and who also wrote the appendix detailing the survey results; and Stephanie Rondenell, who reviewed most of the sections prepared by NCSC staff.

The federal project monitor was Scott Kelberg, program manager, Bureau of Justice Assistance.

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Project Overview

The Bureau of Justice Assistance (BJA), U.S. Department of Justice (DOJ); SEARCH, The National Consortium for Justice Information and Statistics; the National Center for State Courts (NCSC); the National Association for Court Management (NACM); and the Conference of State Court Administrators (COSCA) have joined to undertake the Court Information Systems Technical Assistance Project.[1] This national effort focuses on developing practical resources for courts to use in automating and integrating information systems, both within the courts and throughout the justice system.

This project, a new national partnership between SEARCH and BJA, builds upon an existing technical assistance program by focusing on courts and their integration needs. The project is designed to develop coordinated automation and integration of court systems across the country. One of its primary objectives is to identify the current state of county and statewide information systems to direct future integration efforts.

The National Task Force on Court Automation and Integration was assembled to guide the project.[2] The task force consists of judges, court administrators, officials from local and state prosecutor and public defender offices, officials from local and state law enforcement agencies, a state legislator, a state chief information officer, officials from national court associations who represent users of and contributors to court information systems, and consultants.

While the task force recognizes that some information processed by justice agencies is outside the interests of the courts, this project was designed to research and report on automation and integration from the courts' perspective. Therefore, the task force focused on the courts' efforts to automate and integrate information systems internally and throughout the justice system.

The task force met a number of times in 1997 and 1998 to identify the challenges to court automation and integration. This report presents the task force's findings and recommended strategies to build the information infrastructure necessary for effective state and local system integration. The strategies recommended herein relate to electronic information exchange within and between the courts, justice agencies, and support agencies.

1. The project's World Wide Web site, at www.courts.search.org, has links to the Web sites of all the project partners.

2. Appendix A contains a list of task force members and their biographies.

Executive Summary

Our nation's court systems have been affected in recent years by developments that have necessitated a change in the way they conduct business. Budget allotments have been reduced at a time when high-profile crimes, such as domestic violence and sexual offenses, are attracting increased public interest in court activities. This public attention has resulted in legislation that mandates increased and automated disposition reporting to state and federal repositories. To comply with new legislative sentencing strategies such as three-strike laws and diversion programs, courts must have access to a range of information sources not necessary or available in the past.

Although information technology provides useful tools for responding to these increased demands, it brings a new set of responsibilities for justice agencies such as law enforcement, prosecution, public defense, and corrections. These agencies must develop:

- ❑ Ground rules, protocols, and priorities to govern the exchange and security of data that each previously maintained using their own standards.
- ❑ New funding and procurement procedures to guide the acquisition, maintenance, and upgrade of integrated information systems used by separate agencies that are often under the control of different government entities.
- ❑ New standards to ensure that the complexities of the justice process are protected as information services move into the electronic realm.

As part of the Court Information Systems Technical Assistance Project, a National Task Force on Court Automation and Integration was formed to identify the key issues of and challenges to justice system automation and integration from the perspective of the courts. From late 1997 to mid-1998, the task force conducted a series of extensive discussions—augmented by an integration survey sent to more than 150 court administrators and information services managers nationwide and a state-by-state assessment of court automation—to determine the status and direction of court automation and integration. From these activities, the task force compiled a list of nine findings and four broad categories of recommended strategies that court system administrators may use to guide automation and integration projects in their jurisdictions.

Findings

The task force findings, which include information on the status of state and county integrated systems in 34 states, are summarized below, and discussed in greater detail in chapter 6:

Finding 1. Court systems undertaking automation and integration projects cite a variety of reasons for doing so, including cost savings, increased efficiency, elimination of redundant data entry, improved decisionmaking, and increased public safety.

Finding 2. The forces driving justice system integration include increased pressure to improve service with existing resources, legislation requiring information sharing, demand for information not historically compiled by courts, and technological advances.

Finding 3. Barriers to court integration include limited resources, resistance to change, complex justice processes, fear of reduced service, distrust, hesitancy to rely on outside staff, current system incompatibility, disagreements over data ownership, and the lack of resources such as data standards, peer networks, documentation of successful systems, and off-the-shelf solutions.

Finding 4. The success of integration projects depends on intense, comprehensive, and ongoing strategic planning that takes into account the acquisition, long-term operation and maintenance, and eventual upgrade of information systems.

Finding 5. Successful projects focus on day-to-day information sharing between courts and other justice agencies and generate statistical and disposition data for state and federal agencies as by-products of these systems.

Finding 6. State agencies take the lead in developing the framework for integration, and local agencies are responsible for developing the operational systems.

Finding 7. Security measures ensure that confidential information is available only to authorized users. The agencies participating in an integrated system must determine what information is confidential and subject to security protections.

Finding 8. Coordinated funding yields greater returns than splitting resources among disconnected efforts. Successful planning involves application of life-cycle costing methods to account for downstream operations, maintenance, upgrades, and training expenses.

Finding 9. The identification and development of information-sharing standards will facilitate integration efforts.

Recommended Strategies

The task force recommends the following strategies for agencies considering or currently administering court automation and integration projects. The strategies, grouped in four broad categories, are summarized below and discussed in detail in chapter 7.

Organization for integration. The recommended strategies in this category are as follows:

- ❑ Successful integration requires strategic planning, a commitment to maintaining top-level technical staff, and acquisition approaches that account for system life cycles.
- ❑ A first step is to establish appropriate governance bodies to provide vision, strategy, policy direction, and implementation oversight.
- ❑ Each project needs an executive sponsor to address priorities and funding issues and to remove barriers.
- ❑ States should be responsible for developing strategic plans, system architectures, and standards or guidelines for statewide implementation.

Standards. Development of standards and communication protocols to ensure the collection, transmission, and exchange of data must remain a high priority of state and national court and justice system management organizations.

Funding. The recommended strategies in this category are as follows:

- ❑ Justice agencies face significant challenges to funding integrated information systems. Agencies may have significant investments in legacy systems with limited long-term utility. Purse-string holders must adjust funding approaches to accommodate technology's explosive growth.
- ❑ National initiatives and incentives are necessary to encourage courts to transfer technology and test innovative solutions. National and state funding to develop standards is also needed. Cost benefits should be highlighted to justify investments in integrated systems.
- ❑ As the life cycles of systems continue to compress, the costs of integrated information systems become ongoing rather than periodic, requiring creative funding alternatives.

Practical resources. The recommended strategies in this category are as follows:

- ❑ Practical resources, including planning guides and clearinghouses for easily accessible standards, are needed to help courts develop integrated information systems.
- ❑ A national information exchange should be established to share information and resources.
- ❑ Technical assistance must be available to help courts design, develop, and manage integrated systems.
- ❑ Best practices should be documented to highlight successful systems.
- ❑ Training should be made available to integrated system users to maximize benefits and ensure user satisfaction.

Introduction

Vision

Imagine a justice system in which, within minutes of an arrest, the arraignment judge has every piece of data needed to make the best possible decision about a defendant's incarceration or release on bail. The system provides the judge with the following information on the defendant:

- ❑ Complete fingerprint-based, standardized national criminal history record, including juvenile records.
- ❑ Outstanding wants / warrants.
- ❑ Probation status and conditions.
- ❑ Schedule of all pending matters.
- ❑ Drug treatment status and test results.
- ❑ Outstanding protective orders and history.
- ❑ Alimony and child support orders.
- ❑ Pending gun purchase applications and permits held in states in which a permit for firearms possession is required and revocable.
- ❑ Sexual offense registration status.

Further, the court has before it:

- ❑ An evaluation of all relevant information regarding community contacts, thus enabling it to make the most appropriate bail decision.
- ❑ An up-to-date listing of jail and treatment facility availability that allows the court to determine the most appropriate placement for the defendant in the event of a plea.

All court documents are electronically filed before trial. Attorneys and parties are automatically notified of all court dates, which are set to eliminate calendar conflicts and to schedule specialized court reporters and interpreters when necessary. All trial participants have real-time access to appellate decisions, statutes, court rules, and jury instructions. Judges and attorneys view real-time court transcripts, and bar-coded trial exhibits are produced instantly.

At sentencing, the system provides the court with detailed information regarding all options. Recidivism rates for similarly profiled defendants are graphically presented for each sentencing alternative. Pursuant to more flexible rules of evidence, the court's World Wide Web site provides a vehicle for those victims and relatives unable to appear in court to make written and videotaped statements. If the judge orders a prison

commitment, corrections is electronically notified of the need for transportation and classification. Profiling begins automatically. Corrections is also provided with information on the amount of time the defendant has served, with "good-time" and "sentence-served" calculations.

This use of information technology in the justice system also serves the community. The public accesses court schedules and other court information through the Internet and interactive stations in public kiosks. Individuals are able to report to probation officers, determine juror status, charge traffic fines to credit cards, schedule hearings to contest alleged traffic violations, query sex offender databases to learn about registrants living in their neighborhoods, or file pro se forms with automated assistance. The justice system successfully accommodates people's schedules so that courts operate as efficiently as possible.

Information technology is now available to make this vision a reality. However, barriers such as competing justice system objectives, technological limitations, stakeholders' inability to understand technology, and differing visions of technology use due to political, policy, management, legal, and economic issues must be overcome. Key decisionmakers must coordinate their efforts for justice information systems to become integrated. The time has come to improve the quality of the nation's justice system by improving information exchange within the system. With integrated justice information systems, this vision will be realized.

Definition of Integration

Integration of justice information systems is best defined as the electronic sharing of information by two or more distinct justice entities within a system. The degree to which information systems are considered "integrated" depends on who participates, what information is shared or exchanged, and how data are shared or exchanged within the system.

Participants Involved

Integration efforts vary depending on who is involved in the process. Integration may be undertaken entirely within a court system. Such efforts may be *horizontal* (among different divisions of the same court system) or *vertical* (from limited to general jurisdiction courts or from trial to appellate and state supreme courts). Horizontal integration allows courts to link civil protection orders to criminal files. In addition, courts are able to calendar criminal cases along with civil matters. Interagency integration may also be achieved horizontally between the court system and other justice system agencies, such as a prosecutor's office, operating at the same level. In addition, integrated systems may link agencies both horizontally *and* vertically, as would the automated posting of trial court disposition data

to a state criminal history repository.[1] Vertical integration extends to the Federal Government when, for example, the repositories electronically forward those dispositions to the Federal Bureau of Investigation (FBI) or access the FBI's National Crime Information Center (NCIC) for criminal histories or other information.

Information Exchange

Integrated systems share different kinds of data. Some systems may include only adult criminal justice data,[2] whereas others may include juvenile, family, domestic relations, and social service data. Some systems may address all operating requirements, such as court revenue management systems, whereas others may limit the database to case management information requirements. However, "information" is increasingly more than just raw data elements: It may include images, audio, video, substance-abuse test results, DNA profiles, and fingerprint minutiae.

Method of Information Exchange

Integration can also be defined in terms of the technology underlying the system. Information may be exchanged through a common database shared by participating agencies; this database applies security standards, which define levels of access. Information sharing may also be facilitated by a coordinated system in which data are maintained in separate databases and exchanged via standardized messages. In addition, hybrid methods of information sharing exist that allow agencies to maintain separate databases while using a central database that gives users different levels of access within the system.

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1. Two examples of integration are found in Baltimore, Maryland, and Manhattan, New York. In Baltimore, criminal history reporting is integrated with booking system, pretrial processing, and state fingerprint reporting. Bar-coding and live-scan units facilitate the processing of information. Fingerprints are electronically forwarded to the state repository, and the state responds with wants/warrants and identification information within 30 minutes. The courts, public defenders, state's attorneys, and corrections are all involved in the integrated system.

In Manhattan, the Midtown Community Court processes a tremendous number of misdemeanor cases daily. This unique courtroom allows judges to access a wealth of information on computer terminals at the bench. The criminal complaint, defendant's criminal history record, case history, and drug test results are all available on the computer. This requires integration of the court with law enforcement, prosecutors, corrections, the state repository, and treatment providers.

2. In Los Angeles County, California, for example, criminal history information is stored in a Consolidated Criminal History Reporting System (CCHRS) database, also known as CHEERS. The CHEERS single-source data warehouse system provides almost real-time data from multiple source systems, including the Los Angeles County court system, the sheriff's criminal history information system, the sheriff's jail system, the district attorney's system, the probation department's system, the juvenile automated index, the California Department of Justice system, the California Department of Motor Vehicles system, and county, state, and FBI warrant systems.

Within these structures, users may have inquiry access only or they may be able to extract, enter, change, print, and report information. The system may operate on a mainframe, on a client/server technology, or on a combination of the two. Information can be shared via a local area network (LAN) or a wide area network (WAN), the Internet, a secured intranet, or a combination of these and other alternatives.

In this report, the discussion of integration refers to information that may be shared through a messaging system using separate databases, a central database, or some hybrid method. However, the exchanged information includes all the data or records necessary to facilitate an information system shared by the courts and associated justice agencies. The true measure of success for these systems is the ability to eliminate or reduce redundant data entry while maintaining access to all relevant data.

Scope of Project

The scope of the Court Information Systems Technical Assistance Project includes identifying the issues involved in integrating justice information from the perspective of the courts, including *what* data are shared, *who* shares it, and *how* it is shared. This project is funded by the Bureau of Justice Assistance (BJA), U.S. Department of Justice (DOJ), and was established by amendment to the Omnibus Crime Control and Safe Streets Act of 1968.[3] While Safe Streets Act funding has historically been limited to research and to training and technical assistance to agencies to improve the administration of criminal justice, DOJ regulations define "the administration of criminal justice" to include "traditional police, courts, and corrections agencies *as well as subunits of non-criminal justice agencies performing a function of the administration of criminal justice pursuant to Federal or State statute or executive order*."[4] Thus, for this project, integrated systems include all agencies and data inside or outside the traditional criminal justice system that affect the administration of criminal justice.

Examples of non-criminal justice agencies include social services and treatment and mental health providers. Examples of non-criminal justice information handled by the courts with implications for the criminal justice process include civil protection orders when violations of such orders result in criminal charges.

3. 42 U.S.C. § 3711 et seq. (amended by striking parts D and E [42 U.S.C. §§ 3741–3766] and inserting new §§ 3741–3742).

4. 28 C.F.R., Appendix to Part 20, 20.3(c) (emphasis added).

Driving Forces

Efforts to integrate justice information systems began in the United States approximately 30 years ago. Unfortunately, few jurisdictions that attempted to integrate information systems achieved adequate levels of electronic information sharing. The demand for integrated systems, meanwhile, has increased in recent years. A number of forces, both internal and external, are driving this demand. Limited resources, legislative requirements and initiatives, technological advances, public expectations, and the changing role of the court all drive the need for automation and integration of justice information systems. For a more complete analysis of these driving forces, see chapter 3.

Benefits

The automation and integration of information systems promise improvements in the quality and speed of decisionmaking throughout the justice system. The benefits of integrated information systems also include cost savings, improved performance and service delivery, elimination of redundant data entry, and increased public safety. For a more complete analysis of the benefits of integration, see chapter 4.

The Courts

Court systems vary throughout the country. Caseloads, court structures, and automation levels differ from jurisdiction to jurisdiction. Some courts have been automated for years, whereas others are just beginning to automate their processes. Before developing automation and integration solutions that address the more general needs of many courts, it is important to identify the differing needs and capabilities of individual courts.

Court Environment

Of the more than 17,000 courts in the United States, more than 16,200 are state trial courts and 95 are state appellate courts.[1] State court systems include courts of limited jurisdiction, courts of general jurisdiction, intermediate appellate courts, and courts of last resort.[2] The greatest state-to-state variation in terms of court jurisdiction is among trial courts, where jurisdiction may be defined according to geographic, monetary, or subject matter limitations. States are frequently dissimilar in the structure of the judicial branches and jurisdictions assigned to their courts, which makes it difficult to develop transferable automation solutions and create national data standards that are relevant from state to state.

In state trial courts, there are more than 10,000 general jurisdiction and 18,000 limited jurisdiction judges.[3] In some states, such as Pennsylvania and Texas, each judge is counted as a separate court, even if the judges all work in the same building. In other jurisdictions, hundreds of judges may work in a single court. When federal, territorial, and appellate courts are included, when part-time and senior judges are added, and when quasi-judicial positions are counted, there are approximately 31,000 judicial officers in the United States.[4] This number does not include federal and state administrative law judges who work in executive branch agencies. Courts are not built with the hierarchical structure commonplace in either executive branch agencies or the private sector. Leadership is more fragmented than in justice agencies; thus leadership support is key to the success of any automation initiative.

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1. Ostrom, Brian J., and Neal B. Kauder, 1996, *Examining the Work of State Courts*, Williamsburg, VA: National Center for State Courts: 12.

2. Rottman, David B., Carol R. Flango, and R. Shedine Lockley, National Center for State Courts, 1995, *State Court Organization, 1993,* Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

3. Ostrom and Kauder: 12.

4. Ibid.

While support is a necessary component of successful projects, many judges have little time to commit to automation initiatives. Throughout the nation, judges are saddled with massive caseloads. In 1996, 87.5 million new cases were filed in state courts. Table 1 lists how these cases are categorized.[5]

Table 1 State Court Case Filings Nationwide, 1996 (in millions)

	General Jurisdiction	Limited Jurisdiction
Traffic	9.0	42.8
Civil	6.5	8.5
Criminal	4.4	9.2
Domestic	3.8	1.3
Juvenile	1.3	0.7
Total	**25.0**	**62.5**

In terms of trends, the number of traffic and parking cases filed is diminishing as states decriminalize these offenses and transfer them to administrative agencies. Caseload growth by case types, from 1984 through 1996, is shown in table 2. Population growth over the same period was about 12 percent.

Table 2 State Court Caseload Growth, 1984–1996 (in percentage)

Traffic	–15
Civil	31
Criminal	41
Domestic	74
Juvenile	64

Although the growth in caseload has been substantial, it has not been explosive, with the possible exception of domestic relations cases. Nonetheless, two-thirds of state courts are not disposing of cases in time to keep up with new criminal and civil filings.[6] Caseload growth is a significant driving force for improved automation and integration because these tools improve the productivity of judicial branch staff.

5. Table 1 statistics are from Ostrom and Kauder.

6. Ibid.: 7.

Another complicating factor is the state courts' organizational and funding structures. In some states, all court staff work for a centralized state court administrative office. In others, the administrative office plays a minor role in court operations. In some states, staff reports to an elected clerk of court in the executive branch, which means that the courts do not control resources related to their operations.

Some courts are funded almost entirely at the state level; others, at the local level.[7] Most have a mix of funding from both sources. About 10 states are almost totally state funded,[8] and 11 are mostly state funded.[9] Fifteen are almost totally locally funded,[10] and another six are mostly locally funded.[11] Eight have an equal mix of state and local funding.[12]

Information Flow

The "incremental paper trail" model is traditionally used to map the flow of offenders through the criminal justice system. This model usually assumes that information travels the same path as the defendants. It also assumes a fairly homogeneous set of cases and sequential processing (see appendix B for a chart showing caseflow through the criminal justice system and an accompanying narrative).

This model depicts criminal justice information flow as an incremental paper trail. Police, prosecutors, courts, and corrections each receive information that is collected and generated in prior steps; these agencies, in turn, add only the data they create. In reality, only 5 percent of cases result in trial and less than 1 percent follow this incremental process because the criminal justice system is a web of semi-interdependent subsystems. A few examples help illustrate this point.

The arrest-detention-release process may occur at the beginning, middle, or end of a case. It may occur several times, or it may never occur. A single arrest may sometimes relate to multiple cases. A system based on the incremental model, which relies on arrest information to begin processing, may fail if a case begins at another point in the process. This would be like

7. Rottman, Flango, and Lockley.: 6. In the source cited, California was listed as "almost totally locally funded," but that status has recently changed. California has been moved to the "almost totally state-funded" group.

8. Alaska, California, Connecticut, Hawaii, Kentucky, Maine, Massachusetts, New Hampshire, Rhode Island, and Vermont.

9. Alabama, Colorado, Delaware, Iowa, Maryland, New Mexico, New York, North Carolina, Oregon, South Dakota, and Utah.

10. Arizona, Arkansas, Florida, Georgia, Idaho, Indiana, Minnesota, Mississippi, Montana, Nevada, South Carolina, Tennessee, Texas, Washington, and Wisconsin.

11. Illinois, Louisiana, Michigan, New Jersey, Ohio, and Pennsylvania.

12. Kansas, Missouri, Nebraska, North Dakota, Oklahoma, Virginia, West Virginia, and Wyoming.

an order-processing system in which workers are required to ship goods to customers even if an order is never received.

Similarly, a defendant can be charged in various ways. A case may begin when a police officer files a citation or felony summons. The prosecutor, after screening documents submitted by a law enforcement agency, may file a complaint in a limited jurisdiction court and later create information for the general jurisdiction court. If a limited jurisdiction court binds charges over to a general jurisdiction court, it may modify the charges considerably. An indictment from a grand jury may also be filed in the general jurisdiction court. Cases may be created when charges are transferred to another court or when an appellate court orders a new trial for a defendant.

Diversion programs also increase the complexity of the system. These programs, whose names vary from state to state, may be implemented at various stages during the process. Prefiling diversion halts a case's progress in the prosecutor's office. If the defendant completes a program designated by the prosecuting attorney, charges are never filed. If the suspect fails to comply with the conditions of the program, charges may be initiated years after the offense. Deferred prosecution usually occurs at arraignment, when charges are filed in the court, but a plea is not taken. The defendant is given a set of conditions and a fixed period within which to meet those conditions. If all the conditions are met, the court dismisses charges at the end of that time. Deferred sentencing is similar to deferred prosecution, but a plea *is* entered. The court does not enter judgment unless the defendant fails to comply with the conditions. Other variations of these types of diversion programs exist. All make case processing and information flow more complex.

The motion-hearing-order subprocess can also occur at various points when a court processes a case. It can occur multiple times, or it may never occur. It can change the nature of the case, consolidate or sever actions, or result in a disposition.

Incremental models also fail to address the fact that all actions are not taken on a case-by-case basis. Plea agreements are often accepted for multiple cases in multiple jurisdictions. For example, a prosecutor may agree to dismiss charges in one case in exchange for a guilty plea to a felony charge in another court. In the past, prosecutors were unaware that defendants had cases pending in other jurisdictions; now, cross-jurisdiction pleas are routine actions in many parts of the country.

A final example is the postadjudication process. Revocation of probation can reopen a case that has been closed for years. Appeals also can cause actions to be revisited after adjudication. An arrest warrant can be issued if a defendant fails to pay a fine or complete community service. In some states, conviction charges may be reduced after successful completion of a sentence. Judgments and sentences can be modified and further processing initiated long after paper files have been archived.

The flow of information in both directions during the process adds to the confusion; information does not simply flow *forward* as the incremental model assumes. For example, courts or prosecutors must notify law enforcement agencies when a case is completed so evidence can be released. Prosecutors and courts continually interact over court schedules, motions, orders, and so forth. Presentence investigation reports require probation staff to work with most of the agencies involved in the case. Courts may monitor drug treatment or other conditions of pretrial release or probation.

Finally, the justice process involves an increasing number of nontraditional justice agencies. Social services, treatment providers, and welfare and child support agencies have become increasingly critical to the justice process over the years. With heightened use of alternative punishments, diversion programs, and drug courts, a large number of agencies now play a role in the justice process. This further complicates the flow of information through the justice system.

What does this complexity mean for information system design? Information systems designed using oversimplified models of the criminal justice process will never succeed. However, systems that reflect the real complexity of the process are very expensive to develop and difficult for users to administer. Flexibility is needed—something that works for most cases and does not fail with exceptional ones. At the same time, the information system must be affordable and simple to operate. This may help to explain why some criminal justice information system projects have not succeeded.

Court Automation and Integration

Automation

As with court structure and funding, responsibility for automation may rest at the state or local level, or each may be partially responsible for different levels of court. Twenty-three states place most automation responsibility at the state administrative office of the courts, 15 rely on local resources, and 12 are mixed.[13] For more detailed and current state-by-state information regarding court automation, see appendix C, prepared by staff of the National Center for State Courts (NCSC).

One challenge court systems face is the cost of developing systems. Automation is more cost-effective if development costs are spread over a number of courts and justice agencies. This approach has motivated states to develop statewide court automation projects and provides a number of benefits, including uniform information for budgeting and policy purposes, cheaper maintenance and enhancement, more consistent court operations, and improved training and data quality programs. There are also drawbacks. Large and small courts often are stuck with “one-size-fits-all”

13. Rottman, Flango, and Lockley.: 136–163.

systems, optimized for neither court. Local courts may end up with information systems that lack the level of functionality they need. Moreover, they may lose the benefits of participating in less expensive systems, such as the ability to share similar data and management, and the resources to generate statistical reports quickly and inexpensively.

Even more problematic for courts is participation in large-scale criminal justice information systems (CJIS). Designing a CJIS to meet the needs of many agencies often prevents a court from integrating applications within the court. In these situations, courts may have to run separate systems for criminal and civil cases and maintain separate financial systems. This result negates the benefits of court participation in an integrated system.

Integration

Although courts and justice agencies have been working to integrate systems for many years, few integrated systems are fully operational. Courts lack the resources to assist the development of integrated systems, such as data standards, a peer network, documentation of successful systems, and off-the-shelf[14] solutions. To determine the state of court integration in the United States, project staff surveyed state court administrators, trial court administrators, and court information services directors in December 1997 to locate operational or planned integrated systems (see appendix D). Nine statewide and 16 countywide systems identified through this process were then targeted for indepth review. Project staff subsequently conducted detailed telephone surveys of representatives in each site identified in early 1998 (see appendix E). Sites not reached in the original survey are scheduled for future documentation. This section summarizes the results of this nationwide integrated justice survey (see appendix F for a detailed discussion of survey results).

On the one hand, state-level integration projects tend to focus on the development of statewide data, telecommunication, and system performance standards geared toward helping state agencies share data and to develop statewide databases. These standards are also expected to guide the conduct of state- and county-level pilot projects. On the other hand, county and small-state integration projects tend to focus on the development of operational solutions—the need to share case-by-case information among local law enforcement and prosecutor agencies, county jails, and courts, as well as the need to access, upload, download, and share information with other localities at the local, state, and federal levels.

14. For purposes of this report, "off-the-shelf" refers to vendor products or systems in use in one or more jurisdictions.

Survey findings included the following:

Definitions. Respondents generally agree that integration refers to the sharing of electronic data to facilitate communication within and among agencies by linking agencies' automated information systems.

Scope. At the state level, all projects include or plan to include linkages between law enforcement, criminal courts, corrections, and state departments of motor vehicles. Individual systems provide access or linkages to probation, parole, juvenile courts, civil case management, prosecution, defense bar, social services, treatment providers, welfare and child support agencies, and the public. One system provides a direct interface to commercial data resellers.

All county-level systems reviewed include criminal and juvenile case-processing components. Data sharing occurs primarily at a horizontal level with other court and justice agencies operating at the trial level only. Most county-level integrated systems reported that they are exploring expansion to include civil case management, links to appellate courts and county-level treatment and social service agencies, and information sharing with state departments of motor vehicles.

Structure. All states surveyed have established committees to supervise integrated system development, implementation, and management. Committees are responsible for policy, management, and technical support. The most formal organizations are established by statute and may be supported by direct legislative appropriations. The least formal are policy committees appointed by executive order or associations of self-appointed representatives of key agencies that share common goals but whose funding sources may be less easily identified.

Although county-level systems also have policy advisory boards or committees whose members represent key justice system agencies, county-level committees tend to require less formal charters. They are more likely to have been formed by agreement among the agencies themselves or as the result of an invitation from the leadership of a county-level agency or from the county board or commission. In a number of cases, the county-level or county-appointed organization provides information technology (IT) staff services to some or all participating agencies, so that competition for funding among agencies becomes much less a concern than it may be for state-level boards.

Underlying technology. In general, state efforts have focused on middleware solutions[15] to link legacy or existing systems. All surveyed states are developing or plan to develop Internet-based solutions, including electronic filing and data entry applications. Most county-level systems

15. "Middleware" is software that facilitates the sharing of electronic information among different computer systems.

surveyed share databases, or databases built on legacy systems linked by middleware. Nearly every system reported that efforts were under way to move applications and access to the Internet.

Standards. All state-level respondents have developed or are in the process of developing statewide data, performance, and security standards. Most based development on a data dictionary, including common definitions, code structures, formats, and edits.

Because county-level systems focus on operations, most counties developed standards to facilitate data exchange among agencies sharing the same databases. (State-level projects tended to emphasize development of data dictionaries to facilitate exchange of data among incompatible systems.) Most counties also developed performance standards to measure the impact of information sharing on operations. (State system performance standards are designed to ensure uniformity in the implementation of operating policies and procedures statewide.)

Costs. Development and operational costs were generally unavailable. Most survey respondents indicated that all systems are undergoing continuous evaluation and upgrading within the context of system life-cycle planning. Future research may better identify total staff resources devoted to systems development for comparison purposes.

About half of the county-level projects were able to estimate the costs of system development (in person-years). Project costs ranged from $400,000 to $20 million and lasted between 2 and 5 years. Volusia County, Florida, was able to document substantial cost savings that were attributable in part to integrated system implementation.

Findings. State-level respondents identified two areas as keys to successful integration: the need for policy leadership and a commitment to funding at project outset.

In retrospect, managers of county-level integrated systems underscored the value of building systems incrementally and of having independence or support from the leaders of participating agencies to develop the system best suited for the needs of all users. They recommended the design of simpler-to-use and easier-to-maintain systems. They suggested developing a process to reduce resistance from participating agencies concerned about data ownership and integrity.

Successful integration projects focus on the day-to-day information-sharing needs of courts and other justice agencies. They generate statistical and disposition information for state and federal agencies as by-products of these systems. At the local level, successful integration efforts focus on providing police, prosecution, courts, and corrections agencies with the kinds of information they need to move witnesses, victims, defendants, and others through the justice process.

States should facilitate local integration efforts by developing standards that support information sharing. While states need to create a mechanism to help integrated systems develop, local courts and justice agencies should maintain the responsibility for development.

Recommendations. State-level survey respondents all recommended that any jurisdiction thinking about integration should develop and adopt a strategic IT planning process; ensure integral roles for judicial or justice system leadership; include the legislature as an integral player in the policy development process; make a commitment to identify and retain top-level technical staff; and focus on integration of functions rather than organizations.

County-level respondents claimed that the keys to success of an integration project are careful design and systemwide support for the project's goals. This support requires the articulation of a vision, agreement and commitment by key agencies and constituent representatives to support the project, justice system leadership, and adequate funding. An effective design is the result of planning, including review and revision of existing practices and procedures; an assessment of available (off-the-shelf or easily tailored) solutions; ongoing technology review to ensure that the system uses state-of-the-art technology and that all hardware and software is acquired within the system life cycle; and development of a conceptual system design that accurately reflects the goals of the agencies within the system, not just the limitations of available funding.

Strategic planning at state and local levels that involves policymakers, purse-string holders, managers, and technical staff and that includes a governance structure and process designed to resolve interagency differences and to leverage multiagency funding requests is vital to the success of integration projects. Successful planning addresses technology acquisition, upgrading or linking preexisting systems, system security, life-cycle funding, and recruiting, training, and retaining highly qualified technical staff.

Driving Forces of Integration

Although the forces that drive integration efforts vary from jurisdiction to jurisdiction, several are common to almost every court system. These include limited resources, legislative requirements and initiatives, technological advances, public expectations, and the changing role of courts.

Limited Resources

Courts, along with other justice system agencies, are continuously asked to do more with less. They are even asked to generate revenue to justify capital and operating expenditures. Budgets are cut or simply fail to keep pace with increasing caseloads and the rising costs of doing business. Court system resources are insufficient to handle the increasing demands on the justice system, even though funding agencies are constitutionally obligated to provide adequate funding to maintain the courts.[1]

In theory, legislative and executive branch funding agencies have legal and policy obligations to provide the courts with the funds required to operate, but most courts, as a practical matter, frequently have to compete for funds with other agencies in their jurisdiction. As a result, courts have to identify cost-effective, innovative ways to do business and generate new revenues. Increasingly, courts and other justice agencies are realizing that integrating information systems will provide long-term cost benefits. Thus, the high cost of maintaining separate, redundant, and inefficient systems is one of the driving forces of justice integration.

Legislative Requirements and Initiatives

Federal and state legislation and federal administrative policy initiatives also provide an impetus toward integration. Federal legislation recently adopted or currently under congressional consideration—such as the Brady Act, sex offender registries, and community notification legislation—encourages or requires additional reporting from the local courts and justice agencies. Courts and justice agencies across the country are attempting to determine the implication of the legislation and the types of

1. "The inherent power doctrine of the courts pertains to the right of the courts to support by virtue of their existence....The inherent power of the courts does not mean that all matters to be adjudicated be given to them. It means that once the duty to adjudicate is given to the courts, the courts have a right to the support necessary to do justice." Friesen, Ernest C., Jr., Edward C. Gallas, and Nesta M. Gallas, 1971, *Managing the Courts*, Indianapolis, IN: Bobbs-Merrill Company, Inc.: 67–69.

resources they will need to respond effectively.[2] Significantly, legislation was signed into law recently that signals the Federal Government's strong commitment to state and local integration of information and identification technology. This section provides a review of federal legislation, federal initiatives, and state legislation that affect the justice system and the drive for integration.[3]

Federal Legislation

The **Crime Identification Technology Act of 1998,**[4] signed into law by President Clinton on October 10, 1998, provides far-reaching, long-term benefits with an enormous positive impact on public safety, crime reduction, and higher quality justice. The legislation has two important components. First, it authorizes $250 million per year from 1999 to 2003 for state grants to promote the use and integration of information, identification, and forensic technologies. This authorization of $1.25 billion over a 5-year period will help establish a foundation on which state and local justice agencies can begin building their integrated information and identification systems and will reduce the time the public must wait to enjoy the benefits of full-scale integration.[5] Second, the legislation also authorizes money to fund grants to states to help them upgrade their information systems so they can participate in national justice initiatives such as the Integrated Automated Fingerprint Identification System and National Crime Information Center 2000.[6]

The **National Child Protection Act of 1993**[7] requires an authorized criminal justice agency in each state to report child abuse arrests and convictions to the FBI for inclusion in its criminal history files or index.

The **Brady Handgun Violence Prevention Act**[8] provides for point-of-sale background checks on all firearms purchasers using the National Instant Criminal Background Check System (NICS), which went into operation on

2. To assess the impact of federal legislation, SEARCH and the National Center for State Courts, under the Justice Information Policy Assistance cooperative agreement with the Bureau of Justice Statistics, U.S. Department of Justice, have convened the National Task Force on Federal Legislation Affecting the State Criminal History System. A report of the task force's findings and recommendations is expected in 1999.

3. Much of the following review of federal legislation is taken from *Interface*, (Winter / Spring) 1998: 12–13, 37. *Interface* is published by SEARCH, The National Consortium for Justice Information and Statistics.

4. Pub. L. No. 105–251 (1998).

5. Although the law authorizes these monies, an appropriation is necessary to fund the initiatives in the Crime Identification Technology Act of 1998. Congress is expected to address this issue in the 2000 appropriations process.

6. These initiatives and others are discussed under Federal Initiatives in this chapter. This section also addresses the approval of the National Crime Prevention and Privacy Compact.

7. Pub. L. No. 103–159, codified as 42 U.S.C. §§ 5119 et seq.

8. Pub. L. No. 103–159, 107 Stat. 1536, codified as 18 U.S.C. § 922.

November 30, 1998. An effective NICS must have access to information concerning all disqualification categories, including felons, fugitives, drug addicts and abusers, adjudicated mental defectives, persons subject to certain domestic relations protective orders, and persons convicted of certain domestic violence misdemeanors.

The **Lautenberg Amendment,**[9] a provision of the 1997 Appropriations Act, amends the 1968 Gun Control Act[10] to add persons convicted of certain domestic violence misdemeanors to the list of those prohibited from buying or possessing firearms. The law defined the procedures used to make a determination under this prohibition, such as whether particular misdemeanor convictions involved elements of domestic violence or whether offenders had jury trials if entitled to them.

Immigration and Naturalization Service (INS) Alien Conviction Notification[11] establishes a requirement, tied to federal funding, that each state enacts a plan for notifying the INS within 30 days of the conviction of any alien for a criminal offense, and that the INS must be provided, upon request, with a certified record of the conviction.

Sex Offender Registration and Notification Statutes, such as the Jacob Wetterling Act,[12] Megan's Law, and the Pam Lychner Act,[13] set minimum standards for state sex offender registration and community notification programs for persons convicted of certain crimes against minors or sexually violent offenses. More rigid reporting requirements are imposed on persons determined to be "sexually violent predators." The statutes require that registration information be made available to local law enforcement agencies in whose jurisdictions registered persons reside. Such agencies are required to establish acceptable notification procedures to protect the public. Fingerprint and conviction data for persons required to register must be promptly transmitted to the Federal Bureau of Investigation (FBI), and registration information must be provided to a national sex offender database.

All states have sex offender registration laws, but the federal statutes set minimum standards for those registries. Forty-five states had enacted notification laws as of July 1997.[14] States were given until September 1997 to

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9. Pub. L. No. 104–208 (contained in 1997 Omnibus Appropriations Act), codified as 18 U.S.C. § 922(g).

10. 18 U.S.C. § 922(g)(8).

11. 42 U.S.C. § 3753(a)(11).

12. Jacob Wetterling Crimes Against Children and Sexually Violent Offender Registration Act (including Megan's Law) is Pub. L. No. 103–322, section 170101, codified as 42 U.S.C. § 14071.

13. Pub. L. No. 104–236, codified as 42 U.S.C. § 14072.

14. Beckman, Marlene, May 1998, in *National Conference on Sex Offender Registries, Proceedings of a BJS/SEARCH Conference,* Criminal Justice Information Policy series, Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics: 15.

comply with the Jacob Wetterling Act and Megan's Law and until October 1999 to comply with the Pam Lychner Act. Those that failed to meet the deadlines risked losing funding for state and local crime eradication efforts provided by the Bureau of Justice Assistance (BJA). The U.S. Department of Justice (DOJ), however, offered 2-year "good-faith-effort" extensions to states that failed to meet the September 1997 deadlines.[15]

National Protection Order File,[16] a section of the 1994 Violent Crime Control and Law Enforcement Act,[17] provides that state criminal justice agencies submitting information for inclusion in the FBI's National Crime Information Center (NCIC) may also submit civil or criminal court orders to protect people against stalking or domestic violence. Another provision of the 1994 Act amended the 1968 Gun Control Act to make it unlawful for persons subject to certain domestic abuse restraining orders to purchase or possess firearms. In most cases, protection orders are entered into the FBI file by local law enforcement agencies, which determine whether particular orders qualify for entry.

A number of reporting mandates imposed on state criminal justice agencies are established as conditions of federal funding. Failure to implement particular requirements can result in the loss of grant entitlements. The two federal grant programs most often tied to these mandates are the National Criminal History Improvement Program, administered by the Bureau of Justice Statistics (BJS), DOJ, and the Five Percent Set-Aside Program, administered by BJA.

In the past, insufficient reporting mechanisms have often prevented courts from providing necessary conviction information to state repositories. To achieve the goals of the legislation, many courts will have to upgrade their reporting and information-sharing capabilities. Moreover, courts seeking to integrate systems with law enforcement agencies will have to capture information and report convictions in entirely new ways. Law enforcement agencies also will have to develop new procedures to deal with increasing information management requirements.

Courts and justice agencies will have to coordinate efforts to ensure that they collect and maintain information needed by other system users. Through proper planning, integration of information systems will help meet these legislative requirements by accurately tying arrests to convictions and to other court orders. This process will ensure complete and accurate disposition reporting so these mandates can serve their intended purposes.

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15. Feinberg, Donna, May 1998, *National Conference on Sex Offender Registries Proceedings of a BJS/SEARCH Conference*, Criminal Justice Information Policy series, Washington DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics: 20–21.

16. Pub. L. No. 103–322, codified as 28 U.S.C. § 534.

17. Pub. L. No. 103–322, 1994.

Federal Initiatives

Federal initiatives are also significantly changing the management of justice information. The FBI's Integrated Automated Fingerprint Identification System (IAFIS), the Interstate Identification Index (III), NICS, the National Incident-Based Reporting System (NIBRS) project, and the NCIC 2000 project are examples of programs that are shaping the design of justice information systems at state and local levels nationwide.[18]

- **IAFIS** is scheduled for full implementation by mid-1999 and will allow state identification bureaus to submit arrest fingerprints electronically, receiving in return an FBI determination of identification or nonidentification (and a criminal history record routed back to the arrest or booking site). IAFIS will also allow state identification bureaus to search FBI files, receiving in return fingerprint images of likely candidates for a state determination of identification or nonidentification. The ANSI/NIST–CSL 1–1993 standard defines the record types associated with digital fingerprint transmission between any two fingerprint systems[19] and can be used to standardize the transmission of fingerprints from local justice agencies to state identification bureaus, from one identification bureau to another, or in exchanges with the FBI.[20]
- **III** uses an "index-pointer" system for the interstate exchange of criminal history records for criminal justice purposes. Under III, the FBI maintains an identification index of persons arrested for felonies or serious misdemeanors under state or federal law. If a record search results in a "hit" on the index, the criminal history record data are retrieved from the state or federal repository that holds the original information and are forwarded to the requesting agency. If extended to cover non-criminal justice inquiries, as planned, the III system would eliminate the need for duplicate recordkeeping at state and federal levels; states would no longer need to submit second and subsequent arrest fingerprints and charge/disposition information to the FBI for all criterion arrests. Instead, states will submit only "first-arrest" fingerprint cards to the FBI. The FBI, in turn, would not have to maintain state offender files. This process

18. For further information on such federal initiatives as IAFIS, NIBRS, and NCIC 2000, see the FBI World Wide Web site at www.fbi.gov/. Background on the SEARCH NIBRS project is available at www.nibrs.search.org. This NIBRS project, funded by BJS, is intended to identify promising and cost-effective approaches to encouraging the adoption of NIBRS.

19. ANSI/NIST–CSL stands for American National Standards Institute/National Institute for Standards and Technology–Computer System Laboratory. ANSI procedures require the review of each standard every 5 years to determine whether it should be reaffirmed, modified, or withdrawn. ANSI/NIST–CSL 1–1993 is undergoing this review process. *Information Systems—Data Format for the Interchange of Fingerprint Information*, published by ANSI. For more information, see ANSI's World Wide Web site at web.ansi.org/. A hardcopy of this standard can be ordered via the Web site.

20. Higgins, Peter T., 1995, "Standards for the Electronic Submission of Fingerprint Cards to the FBI," *Journal of Forensic Identification*, 45 (July/August): 411.

would free state resources that could be applied to other programs to further improve federal and state criminal record files.[21]

- **NICS** is intended to facilitate instant criminal history record checks of firearms purchasers required under the Brady Law. Using the NICS, federal firearm licensees (FFLs), through state points of contact or the FBI, will seek to identify those categories of persons who are ineligible to purchase firearms. Identification by FFLs requires that they review a variety of records that may be maintained by federal, state, and local authorities and by private parties; that may or may not reside in centralized locations; that are in various stages of automation; and that may be subject to state and federal privacy protections which restrict their use.[22]
- **NIBRS** participation is voluntary. To participate, state or local agencies must submit standardized criminal justice data to the FBI. NIBRS fundamentally changes the way crime is counted in the United States. Instead of monthly aggregate reporting of summary crime and arrest statistics under the Uniform Crime Reporting program, which has been in place since the 1930s, agencies would submit detailed data of crime and arrest activities at the incident level, using standardized coded data elements. Incident-based reporting promises significantly richer data regarding the nature of crime and law enforcement response and should greatly expand analytic capabilities at federal, state, and local levels.
- **NCIC 2000** will upgrade NCIC's capabilities to exchange information without paper. In addition, NCIC will be able to handle graphic information, including mugshots, tattoos, and offenders' signatures, in a paperless imaging format.[23]

These federal initiatives will greatly improve the quality of criminal history and identification information available at the local level. To take advantage of these enhanced information system capabilities, however, many state and local agencies will have to upgrade their technical capabilities. Courts and other justice agencies seeking to integrate systems will have to

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21. Belair, Robert R., and Paul L. Woodard, SEARCH Group Inc., November 1993, *Use and Management of Criminal History Record Information: A Comprehensive Report,* Criminal Justice Information Policy series, Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics: x and 52. In October 1998, the National Crime Prevention and Privacy Compact, which formalizes use of III for authorized noncriminal justice purposes such as background checks conducted for security clearances, license issuances, and preemployment checks, was passed by Congress and signed into law by President Clinton as Title II of Pub. L. No. 105–251. For a state to participate, it must ratify the compact through the legislative process.

22. Information regarding the status of NICS was provided in a report by Sheila J. Barton, Deputy Director, SEARCH.

23. See Jones, Jennifer, 1993, "FBI's Christensen Merges Criminal ID Systems," *Federal Computer Week* (Feb. 1): 29.

comply with national standards so that the benefits of federal programs can be realized. In addition, some initiatives also result in greater mixing of federal and state data resources, creating even greater impetus for local agency information systems to integrate.

State Laws

Pursuant to Megan's Law, all states have enacted laws that require the registration of sex offenders and all are required to institute some form of community notification. Courts are frequently required to certify, upon conviction, that the convicted person is a sex offender and to include the certification in the order of commitment. Such requirements increase the need for efficient exchange of complete and accurate information.

For many years, most states have had provisions in their laws for enhanced sentencing for repeat offenders. Yet between 1993 and 1995, 24 states and the Federal Government enacted new laws using the "three-strikes" label. Similarly labeled bills were introduced in other states.[24] These laws differ from jurisdiction to jurisdiction, but their purposes are simple: Offenders convicted repeatedly of serious offenses should be removed from society for long periods, in many cases for life.[25] Effective implementation of three-strike laws requires that prosecutors and courts have access to complete criminal history information to ensure appropriate charging by the prosecution and proper sentencing by the courts. Integration of information systems will ensure that complete and accurate criminal history information is available when needed.

Technological Advances

Rapid advances in information systems and identification technologies are steadily allowing courts and other justice agencies to automate and integrate their information systems. With the advent of distributed network computing, telecommunication, open-systems architecture, and powerful database applications, information systems automation and integration can be accomplished faster, cheaper, easier—and with more robust applications—than ever before.

Consider the advanced capabilities that technology can provide courts and other justice agencies in accessing and retrieving complete and accurate data in a timely fashion:

- ❑ Technology enables a law enforcement officer to transmit an incident or crime report electronically from his or her patrol car to headquarters.

24. Clark, John, James Austin, and D. Alan Henry, 1998, "Three Strikes and You're Out," *Judicature*, 81 (January–February): 144.

25. Ibid.

The report can be transmitted to the district attorney and forwarded to the court within hours, if necessary.

- ❑ Technology allows a jailer to capture an electronic fingerprint with a "live-scan" device and to submit the print electronically to federal, state, and local databases to receive a positive identification within minutes.
- ❑ Technology gives a judge on the bench comprehensive, accurate, and reliable information about parties, witnesses, and counsel appearing before the court. This allows the judge to make informed bond and sentencing decisions.

Indeed, technology has created a new frontier in justice information system automation and integration. Disk drive storage capacity alone now doubles at least every 12 months, and this timeframe is shrinking significantly, according to industry experts. Simultaneously, the cost of these powerful systems has plummeted.[26] The growing use of the Internet and the World Wide Web to exchange information, regardless of system platforms and architecture, is also changing in the way courts and justice agencies do business.

Advanced integration projects that were once nearly impossible to accomplish are being realized with new technology. Multiple agencies that collect much of the same data, but use the data differently, no longer have to agree on identical hardware and software systems to achieve integration. Internet technology, middleware applications, and data-warehousing solutions, to name a few, have allowed individual agencies to acquire and maintain hardware and software components that best meet their primary business needs but also allow them to participate in an open data-sharing network. Technology can now transfer crucial data stored in legacy systems into an integrated system.

The ability of courts and other justice agencies to take advantage of new technology is particularly crucial as older justice agency information systems become less able to meet the growing demand for sharing data and new data formats, such as storing and forwarding electronic mugshots, fingerprints, and imaged documents; handling Internet and World Wide Web traffic; and providing for public access. Technology's impact on courts and justice agency automation and integration is a forceful driver, particularly as the justice community understands the benefits it offers.

Public Expectations

The general public's expectation for and dependency on information has grown substantially over the years. The public has become far more

26. In 1975, an IBM mainframe cost approximately $10 million and provided 10 million instructions per second (MIPS), or about $1 million per MIPS. In 1998, a Pentium® personal computer cost approximately $2,500 and provided roughly 300 MIPS at a cost of $6 to $10 per MIPS.

knowledgeable about the type of information available, particularly with the proliferation of personal computers and accessibility to the Internet, and has come to expect that most "government" information is freely available somewhere. Employers, state licensing boards, security investigators, and many other requestors increasingly rely on criminal history information to make important decisions.[27]

When inaccurate information regarding a person's criminal history is released, however, it can have a devastating impact. Naturally, increased access to data brings increased expectations about data quality. The public expects criminal history information to be accurate. Criminal histories rely on linkages between justice agencies that may not have proper lines of communication. Criminal histories are left incomplete and inaccurate when court dispositions are not reported to the state or when arrests are not properly tied to dispositions. This may lead to the release of dangerous offenders and to high-profile tragedies, mistakes that undermine the public's confidence in the justice system.

Outside the context of criminal histories, many citizens find that getting information from the justice system is difficult at best. Given the large volume of paperwork contained in most court files, the average citizen faces a significant challenge to simply sort through and identify relevant data.[28] Furthermore, complainants, witnesses, and defendants waste precious time leaving work to travel to courtrooms, only to learn that their case has been scheduled for another date.

To alleviate some of these inefficiencies, many courts have designed World Wide Web pages and other Internet resources that provide background information, court schedules, legal references, and other information.[29] Law enforcement agencies are also creating Web pages that provide varying amounts of information.[30] In Florida, for example, the Florida Department of Law Enforcement Web site allows access to information regarding sexual predators, sex offenders, and early releasees from prison.[31] For a

27. The FBI's Criminal Justice Identification Services (CJIS) Division in Clarksburg, West Virginia, receives more than 50,000 requests for identification each day. The Clarksburg facility receives these requests on fingerprint cards. Roughly half are criminal arrest cards (individuals who were recently arrested); the remaining half are civil application cards (individuals applying for jobs requiring criminal background checks, such as bank officials or police officers). Stone, Alan L., 1997, "FBI Uses Unique Application of Award Fee Incentive," *Program Manager* November/December: 72.

28. The Orange County Superior Court in California has addressed this issue through use of an integrated imaging system, which gives the public direct access to court documents at a kiosk housed in the clerk's office. The public is able to query court documents online.

29. The National Center for State Courts (NCSC) provides an extensive listing and linkages to court Web sites throughout the country at www.ncsc.dni.us.

30. See the Police Officer's Internet Directory at www.officer.com. The directory lists more than 1,500 law enforcement departments from around the world.

31. The Web site address is www.fdle.state.fl.us.

fee, interested parties may order criminal histories directly from the Web site. Since Florida is an open-records state, the public has significant access to information that would be considered private and confidential in other states. Nevertheless, the public's increasing ability to access court and justice information data through the Internet has heightened public expectations about the availability of information.

Integration of information systems gives courts and justice agencies the opportunity to make more information available to the public. Through use of kiosks, the public can access court documents, court schedules, and other information in the court records. Confidential information will have to be restricted from public viewing, however, and increased public access to information must not infringe on individual privacy rights. Integrated system planning requires a proper balance of public access to and protection of information.

Changing Role of Courts

The role of the courts has changed dramatically over the years. Courts are increasingly performing social service functions that require tremendous time and effort. As the justice system evolves, courts are forced to collect more information, develop new data management functions, and improve information exchange with other justice system agencies. Systems designed to facilitate the exchange of new kinds of information must balance conflicting needs for reporting statistical data with the operational needs of courts and justice system agencies.

Domestic violence courts, drug courts, diversion programs, and diverse sentencing options are some examples of the increased monitoring performed daily by courts. With the addition of domestic violence and drug courts, the court system must set increasing numbers of review hearings and monitor defendants' progress through treatment programs. Similarly, courts monitor defendants' compliance with diversion programs and related court directives while criminal proceedings are suspended. In the context of sentencing, defendants may be sent to residential treatment centers or ordered to perform community service in lieu of jail or prison commitments.

These court actions, while socially beneficial, consume judicial resources. Courts and justice agencies commit much time to reviewing hearings. The system is slowed tremendously by the number of continuances ordered because of the lack of information about drug tests, bed space availability at residential treatment facilities, or defendants' attendance at court-ordered programs. Without improved sharing of information, those in the judicial system simply cannot keep pace with the increased numbers of decisions that need to be made.

The recent proliferation of more than 400 drug courts has driven the development of integrated management information systems that can readily provide the information needed by the court to make informed decisions in individual cases.[32] An integrated drug court system is only one piece of the larger system, which provides drug court information to all appropriate justice agencies, thus facilitating the entire justice process.

32. Four systems developed by local practitioners to meet drug court information management needs are the Jacksonville Drug Court Management Information System (MIS), Florida; the Brooklyn Treatment Court MIS, New York; the Washington, D.C., Pretrial Real-time Information System Manager (PRISM); and the Washington/Baltimore High Intensity Drug Trafficking Area (HIDTA) Treatment Tracking System in the District of Columbia and Maryland.

Benefits of Integration

The benefits of integration include responses to the driving forces described in chapter 3, such as fulfilling federal and state mandates, using technological advances, responding to public expectations, and providing the courts and justice system agencies with the data they need to do their jobs effectively and efficiently. Integration will yield the following benefits:

- ❑ Cost savings.
- ❑ Improved performance and service delivery efficiencies.
- ❑ Elimination of redundant data.
- ❑ Improved quality of decisions.
- ❑ Improved public safety.

Cost Savings

Integration affords opportunities for substantial cost savings, both by economies of scale among justice system agencies and by reduced operating expenses within the courts. Integrated systems eliminate the need for each justice agency to generate its own hard-copy records. Because approximately 50 percent of court costs are attributed to paper handling and storage, potential cost savings are substantial.[1] In addition, staff resources allocated to the generation of duplicate records also will be substantially reduced because data will be generated only once and subsequent documents will be electronically generated. Further staff savings will accrue as electronic filing reduces the need to staff the court clerk counter. Clerks will no longer have to process by hand multiple hard copies of filings. Documents will be automatically filed, processed, copied, and forwarded to counsel, parties, judges, and other affected agencies and individuals without postage or delivery expenses.

The cost benefits of integrated systems will vary greatly from jurisdiction to jurisdiction. Obviously, broader integration efforts will result in greater cost savings and increased operating efficiency. Nevertheless, even small amounts of integration can pay off relatively quickly and increase support for other efforts. Although few jurisdictions have documented cost benefits in terms of the dollars saved as a result of integrating systems or components of systems, the jurisdictions discussed below provide examples of cost savings. They include Harris County, Texas; Washington State; and Brockton and Barnstable, Massachusetts. The final example, from Los Angeles County, California, illustrates the high cost of not implementing integrated system solutions.

1. McMillan, James E., 1994, *Judicial Electronic Document and Date Interchange (JEDDI), A Road Map*, Williamsburg, VA: National Center for State Courts, Court Technology Laboratory.

Harris County, Texas

Harris County's integrated justice system has allowed local justice agencies—including the sheriff, district attorney, district clerk, pretrial services, courts, and law enforcement agencies—to expedite criminal case filings, thus significantly reducing the time defendants are held in pretrial custody. Criminal cases are filed electronically from any law enforcement station in the county and reviewed 24 hours a day, 7 days a week, by an assistant district attorney. During this process, offenders are processed through the county automated fingerprint identification system (AFIS), positive identification is established, and defendant data are collected and entered into the system by the Pretrial Services Agency. If charges are accepted, a criminal complaint is prepared. A clerk assigns a case number and court location, indicates the initial bond amount according to a schedule provided by the courts, and determines if the offender has other pending charges. If other charges are pending, the new case is assigned to a court that has pending cases, thus consolidating all cases in a single court.

Thus, in Harris County, suspects make a first appearance in a court with dispositive jurisdiction for both felony and misdemeanor cases within 24 hours of their arrest. The previously used case-filing method took up to 30 days to accomplish the same process. The average daily jail population has been reduced by more than 400 inmates per day. At a current daily incarceration cost of $45 per inmate, the integrated system saves the county $18,000 per day, or $6.57 million per year.

Other benefits accrue because all information about the case and the offender is collected at the beginning of the booking process and immediately made available to all justice agencies participating in the system. Courts are able to dispose of cases within days of arrest. For example, 47 percent of all nontraffic misdemeanors are disposed of within 30 days of arrest. Cases previously were pending more than 120 days before disposition occurred.[2] Systemwide integration in Harris County has produced tremendous cost savings and an equally impressive increase in the quality of justice dispensed.

Washington State

In Washington State, the Law Enforcement/Court Scheduling System (LECS) was implemented to reduce officer overtime and to ensure officer participation in court proceedings. The system requires both courts and local law enforcement agencies to coordinate officer and court schedules.

LECS has been used by Pierce County District Court 1, the Washington State Patrol, and the Pierce County Sheriff's Office since September 1991 to determine the best dates for law enforcement officers' court appearances.

2. Information regarding the Harris County Integrated Justice System was provided by task force Chair Bob Wessels, Court Manager, County Criminal Courts at Law, Harris County, Texas.

When courts and local law enforcement agencies coordinate their efforts, LECS has scheduled officers to appear in court on their scheduled work days 97 percent of the time, thereby reducing overtime costs by an estimated 68 percent. These reductions have translated into annual savings of $2,000 per courtroom for misdemeanor cases.[3] Although the scheduling system involves only minimal integration, the savings are substantial.

Integration need not include a range of justice functions to generate significant cost savings. Videoconferencing, for example, provides interactive electronic communication between two or more groups located at separate sites. It is a cost-effective communication tool that can help agencies avoid the weighty costs of providing legal representation and probation services for inmates of jails far from the courthouse. Sacramento County, California, is one of many jurisdictions that currently uses this technology to generate cost savings.

Brockton and Barnstable, Massachusetts

Major automation initiatives took place between 1994 and 1996 in the Brockton and Barnstable District Courts in Massachusetts. The resulting system in each is integrated by design and incorporates the case-processing requirements of the clerk-magistrates' office and of the probation department. It encompasses case preparation, docketing, scheduling, form and notice generation, cashier processing, and accounting and management reports. Abstracts of judgments, assignment of counsel notices, criminal warrants, and orders of commitment, which are required by the Registry of Motor Vehicles, the Public Defender's Office, and various enforcement agencies and correctional institutions, are automatic by-products of the courts' case processing.

The Public Defender's Office has generated significant cost savings as a result of this project. The office requires the court to issue a multipart form for each indigent assignment. It provides these forms to the courts through a contracted printer to cover the approximately 200,000 such assignments made each year. Before the implementation of the new system, court clerks were assigned the task of writing or typing each assignment, obtaining a judge's signature, and then mailing the form to the appropriate parties. Currently, the system automatically creates the completed form from the complaint database in the two district courts. This new process saves the Public Defender's Office $55,000 a year in printing costs. Due to its success, this process is scheduled to be extended to the state's other 67 district courts.

Programming will be developed during Phase III of this project that will allow the electronic transfer of assignment information. This enhancement should save the Public Defender's Office an estimated $45,000 a year in

3. Information regarding the Washington Law Enforcement/Court Scheduling System was provided by task force member Mary Campbell McQueen, Washington State Court Administrator.

data and outsourcing services. The office stands to realize cost savings of at least $100,000 a year because of integrated information systems.[4] The cost benefits enjoyed by the Public Defender's Office are only one measure of the cost-effectiveness of this integrated system. Cost benefits are clearly being spread among the various users of this system.

Los Angeles County, California

Failure to integrate systems can lead to substantial expenditures. Recently, Los Angeles County sheriff's officials "disclosed that they mistakenly held an inmate serving time on a misdemeanor traffic violation for 9 months after he should have been released."[5] According to sheriff's department documents, "The problem of over-detaining inmates has been going on for years. In 1997, nearly 700 inmates were held in county jails for an average of 6.9 days past their ordered release dates.... [T]he department's risk management unit in 1997 paid nearly $200,000 to 548 inmates who were incarcerated for a total of 3,694 days beyond their sentences—on the condition that they agree in writing not to sue."[6] In response, then-Los Angeles County Sheriff Sherman Block stated that his department "is establishing a computer system that will link the Inmate Reception Center with courthouses, eliminating the need to manually process thousands of pieces of paperwork at the jails each night."[7]

The custodial errors described above are not unique to Los Angeles County; they are committed throughout the country. Simply linking the sheriff's department and the courts may result in significant cost savings. Integration of systems may thus occur on a limited scale and still create significant benefits.

Improved Performance and Service Delivery

The goal of all court systems is to resolve cases "justly, promptly, and economically."[8] Efforts to achieve this goal can be enhanced by the development and implementation of integrated information systems that (1) improve the quality of judicial decisionmaking by providing courts with relevant data from all sources when needed; (2) schedule events and provide data to facilitate case processing at every critical step in the criminal justice process; and (3) reduce justice system costs for data collection,

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4. Information regarding the Brockton/Barnstable integration project was provided by task force member Regina M. Dembowski, Director, Private Attorney Payment Department, Committee for Public Counsel Services, Boston, Massachusetts.

5. Daunt, Tina, 1998, "Man Held for 9 Extra Months Freed From Jail," *Los Angeles Times*, May 23: Metro section, B1, B3.

6. Ibid.

7. Ibid.

8. American Bar Association Standards Relating to Court Organization (1974); ABA Standard 100.

entry, processing, and dissemination by allowing agencies to share those costs and responsibilities.

Examples of efficiencies inherent in integrated systems are:

- ❑ Justice agencies have access to the same accurate data throughout the legal process. Thus, if a conviction is expunged in a particular court, all other court, law enforcement, prosecution, and correction records are updated simultaneously so that all agencies within the system operate with the same facts.
- ❑ Schedules of events and documents are automatically generated. When an officer files an arrest report, counsel can be assigned, bail can be arranged, and arraignment can be scheduled within a constitutionally appropriate timeframe.
- ❑ Court dispositions are sent automatically to state repositories and are tied to reported arrests, ensuring that criminal history information is complete and accurate so that judges are able to make informed decisions when evaluating a defendant's custody status or determining an appropriate sentence. In addition, courts are able to comply with state and federal reporting requirements that may be imposed on participants in federal programs designed to improve the justice system. These federal initiatives depend considerably on the quality of information generated at the state and local levels.

Elimination of Redundant Data Entry

Historically, every criminal justice system agency, such as police, prosecution, courts, pretrial services, public defender, and sheriff, collected similar information on defendants. Automation further institutionalized redundant data collection because few communities automated together or recognized that other agencies might be customers for or willing to share their data.

The more agencies entering data for a particular case, the greater the likelihood that data will be entered inaccurately, incompletely, or inconsistently. Less redundancy means greater consistency. More important, integrated systems establish data standards across all agencies; thus, the formats and controls to ensure consistent quality are built into the system. In addition, integrated systems allow one agency to enter information that automatically updates other agencies' information; this ensures consistent information and eliminates data errors. Fewer data errors mean fewer mistakes, such as the accidental release of a defendant.

Improved Quality of Decisions

Integration of information systems will result in the timely exchange of data between relevant entities so that decisionmakers have the information they need, when they need it, to make the best judgments they can. Integrated systems will arm judges with necessary information when making critical bond and sentencing decisions. Improved data interchange will make it possible to capture information that may have been unavailable in the past at critical stages of the process. For example, a defendant's progress in making restitution payments will automatically be available whenever that defendant comes to criminal court because the agency monitoring restitution will update the defendant's payment activity electronically. Similarly, court integration with treatment and service providers will allow the timely exchange of critical information such as attendance at court-ordered meetings, progress in treatment programs, and compliance with community service obligations. In all cases, the quality of judicial decisions is improved.

Improved Public Safety

The most marketable benefit of integration is its promise to make the community safer and the public feel more secure. An integrated system will reduce, if not eliminate, instances in which courts release dangerous criminals based on erroneous or insufficient information. It will also ensure that sex offenders are not discharged without notice to law enforcement and the public. It will also better guard against the sale of guns to convicted felons and other prohibited purchasers.

Challenges to Integration

Even though integration of state or local information systems has many benefits, those involved in implementation must overcome a number of legal, organizational and management, technical, and security barriers.

Legal Issues

Courts and justice agencies planning to integrate information systems must face the following legal issues: (1) the impact of juvenile justice reform, (2) varying state information dissemination and privacy policies, (3) integration's impact on Freedom of Information Act (FOIA) requests, and (4) appropriate timing and access to information.

Juvenile Justice Reform

Pending federal juvenile justice recordkeeping legislation will require that juveniles arrested for serious crimes be fingerprinted and photographed, that juvenile justice records relating to serious offenses be maintained at the state's central repository, and that records be handled in the same manner as adult records for purposes of national reporting.[1] This is fundamentally different from the way states have traditionally dealt with juvenile records and may require substantial changes in records processing at state and local levels. Further, state laws on the confidentiality and privacy of juvenile records will have to be substantially rewritten, or new privacy policies and standards will have to be developed, to balance federal initiatives with privacy guarantees under state laws.

State Dissemination and Privacy Policies

All states have passed different laws defining privacy and confidentiality of information, thus limiting the availability of certain records and the state's ability to disseminate information.[2] For instance, some states can legally disseminate information over the Internet, whereas others cannot.

This lack of uniformity complicates the issue of interstate dissemination of information. With the passage of juvenile justice legislation and the

1. Violent and Repeat Juvenile Offender Act of 1997, S. 10, 105th Cong., 1st Sess. § 303 (1997).

2. In California, for example, a private entity in the business of selling criminal background information to the public was not entitled to obtain a compilation of data from a database maintained by the Municipal Courts of Los Angeles County because it included the name, case number, date of offense, charges filed, pending court dates, dispositions, birth date, and ZIP Code of every person against whom criminal charges were pending in those courts. After reviewing the applicable penal code statutes, the appellate court determined that the right to privacy outweighed the justification for disclosure of "a master record of compiled information." See *Westbrook* v. *County of Los Angeles* (1994) 27 Cal. App. 4th 157.

increase in electronic data interchange, privacy issues arise whenever information flows from one state to another. Furthermore, information deemed to be public record in court documents is often treated as confidential by other justice agencies. Determinations will have to be made about the nature of this information as the policy environment changes and information becomes more accessible electronically. When information is deemed to be confidential, system security measures will have to ensure that such information is made available only to authorized users. The use of integrated systems will undoubtedly lead to litigation and new laws regarding the dissemination of information.

Interstate dissemination issues were addressed in the National Crime Prevention and Privacy Compact, which will facilitate interstate and federal-state criminal history record exchanges for non-criminal justice purposes as authorized by federal and state laws. Record exchanges would be made via the Federal Bureau of Investigation's (FBI's) Interstate Identification Index (III) system. The Compact stipulates that use of the information obtained by an authorized user through the system for non-criminal justice purposes will be governed by the laws of the receiving state and that the receiving repository must screen record responses and delete any information that cannot be released legally within that state.[3] The Compact drafters had to determine the state dissemination laws that would govern proper exchange of criminal history information. Such determinations will have to be made whenever criminal justice information moves between states.

Freedom of Information Act Requests

The Federal Freedom of Information Act and state equivalents pose similar legal problems. Courts and justice agencies will have to determine data ownership and how to respond to FOIA requests. Courts or agencies responsible for responding to such requests will have to ensure that public access to court records does not compromise personal privacy interests. Courts may be called upon to decide whether public domain data in the court system becomes confidential data in an integrated system when combined with nonpublic data or when contained in a traditionally nonpublic format. Again, litigation and new laws will have to redefine the difference between public and confidential information.[4]

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3. Woodward, Paul L., SEARCH Group, Inc., 1999, *National Crime Prevention and Privacy Compact*: *Resource Materials*, Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics: 5. In October 1998, the Compact was approved by the Federal Government as Title II of Pub. L. No. 105–251.

4. In *Department of Justice* v. *Reporters Committee for Freedom of the Press* (1989) 489 U.S. 749, the U.S. Supreme Court held that disclosure of the contents of an FBI rap sheet to a third party is prohibited by exemption 7(C) of FOIA. Exemption 7(C) of FOIA exempts the dissemination of information that "could reasonably be expected to constitute an unwarranted invasion of personal privacy." 5 U.S.C. § 552 (b)(7)(C) (1982 ed., Supp. IV). The Court went on to say, "[A]lthough much rap-sheet information is a matter of public record, the availability and dissemination of the actual rap sheet to the public is limited" (Reporters Committee: 751).

Access to Information

As noted previously, rap sheets are used for governmental purposes. Nevertheless, access to rap sheets and police reports is limited by state laws. Statutes may limit the number of people with access to information or the timing for acquiring information. For instance, state statutes may prohibit court access to rap sheets and police reports after formal charges have been filed and before trial.[5] Such laws have a direct impact on court access to information. Integrated information systems will have to take into account these legal restrictions.

Similarly, state statutes govern rules of discovery between the prosecution and defense. Again, integrated systems must be designed with an awareness of discovery rules to ensure the legal exchange of justice information. In addition, courts will be faced with decisions regarding proper compliance with discovery requests. For example, state statutes may allow the prosecutor 30 days to comply with discovery requests, but courts may impose stricter timelines due to improved access to information. This could lead to new statutory discovery rules.

Organizational and Management Issues

Another key challenge is how to organize, develop, fund, and maintain an integrated system. Limited resources, resistance to change (especially among elected officials), complexity of the justice process, fear of reduced customer service, distrust of others, hesitancy to rely on other agencies' technical staff, incompatibility of court and justice agency information systems, and disagreements over determining data ownership pose substantial organizational and management problems. Justice system integration requires coordination across legislative, executive, and judicial branch agency lines, and across federal, state, and local jurisdictional boundaries. Because each participating

5. In California, for example, Penal Code § 1204.5 reads:

(a) In any criminal action, after the filing of any complaint or other accusatory pleading and before a plea, finding, or verdict of guilty, no judge shall read or consider any written report of any law enforcement officer or witness to any offense, any information reflecting the arrest or conviction record of a defendant, or any affidavit or representation of any kind, verbal or written, without the defendant's consent given in open court, except as provided in the rules of evidence applicable at trial, or as provided in affidavits in connection with the issuance of a warrant or the hearing of any law and motion matter, or in any application for an order fixing or changing bail, or a petition for a writ.

(b) This section does not preclude a judge, who is not the preliminary hearing or trial judge in the case, from considering any information about the defendant for the purpose of that judge adopting a pretrial sentencing position or approving or disapproving a guilty plea entered pursuant to Section 1192.5, if all of the following occur:

(1) The defendant is represented by counsel, unless he or she expressly waive[s] the right to counsel.

(2) Any information provided to the judge for either of those purposes is also provided to the district attorney and to the defense counsel at least five days prior to any hearing or conference held for the purpose of considering a proposed guilty plea or proposed sentence.

agency has its own goals and funding sources, integration requires nontraditional solutions to ensure that each agency's control over its domain and management of its own resources are undiminished.

For integration projects to be successful, both the management structure and governing process must accommodate differing agency perspectives. The structure should include discrete committees responsible for executive, operational, and technical functions and may be facilitated by statutory mandate. The process must include executive sponsorship and allow for support from all stakeholders, including system agencies, funding agencies, the business community, and the public. In addition, the process must provide for ongoing program review and evaluation. At the project development stage, executive, operational, and technical committees should establish standards and protocols regarding ownership and management of the system. Policy determinations should be made regarding data ownership, access, system security, system administration and control, and funding.

Determining who owns data after the data are entered in the system or become accessible to system users is a key policy issue. One agency may treat data as public domain, another as confidential, but the interests of both must be addressed in policy development. Determination of data ownership may affect whether and at what cost data can be packaged or sold to public or private organizations or individuals, and who receives the revenue generated from the sale.

Similarly, responsibilities for system administration and control will have to be determined and the roles of each participating agency defined. To what extent should courts take a leadership role in future integration efforts? The court is in a unique position to track information, update the system with data as they become available, and thereby ensure that the data entered are complete, timely, and accurate.

Finally, funding is critical to successful integration efforts. In jurisdictions where courts and justice agencies have historically competed for the same funds, courts may have to balance their own system development priorities with those of other agencies in the integrated planning initiative to allow for funding of enterprisewide solutions. Integration efforts require, at minimum, a coordination, and perhaps a consolidation, of agency funding efforts. Funding bodies must understand that money allocated to a coordinated project will yield greater returns than resources splintered among disconnected efforts.

Technical Issues

Court and justice agency information system automation varies dramatically across the country. Many courts have been automated for years and have invested significant time and resources into developing systems that

meet their business needs, albeit with older technology. Automation efforts tended to focus on improving internal agency operation, with little consideration given to what courts and justice agencies nationwide were doing. This approach has resulted in incompatible, piecemeal systems that cannot communicate easily with one another.

Rapid advances in information and identification technologies and the enormous potential for automation and integration that new technology offers have provided courts with new opportunities to automate internal systems and to link those systems to other agencies. However, with all the progress that has been made, significant technical challenges to integration still exist. Courts and justice agencies must:

- ❑ Determine what to do with legacy or existing systems and become knowledgeable about new technologies for automation and integration.
- ❑ Incorporate technology and data standards into new system.
- ❑ Hire, train, and retain qualified information technology support staff.
- ❑ Understand systems development life cycles.
- ❑ Undertake comprehensive strategic information technology planning.

Legacy Systems

Many courts and justice agencies have invested extensively in information systems that have evolved into valuable tools housing significant amounts of data. In many cases, these systems were developed to respond to the crucial daily business needs of single agencies. Consequently, agencies across the country maintain a variety of information systems—located on mainframes or PCs and that are either public domain or proprietary—with applications developed inhouse or purchased from a vendor. Most systems cannot communicate easily with one another.

Until recently, courts seeking to upgrade or integrate their automated systems were forced to make one of two decisions: either upgrade and maintain their legacy systems by purchasing the latest version of their existing technology or purchase a new system developed on a different platform and endure the painstaking process of data conversion. Both options were expensive. If integrating with other justice agencies was the goal, the only option for all potential participants was to agree to purchase the same consolidated system. Fortunately, technological advances now give agencies a number of ways to handle legacy systems and to integrate with outside agencies. How best to accomplish both activities is still an important issue.

Courts can now upgrade their current systems, implement new systems, or maintain historical data in legacy systems with links to new systems. Advanced middleware applications—software that can “link” incompatible systems by extracting data and converting the data to any system’s specifications—can link disparate and legacy systems. While this option avoids

wholesale conversion of historical data and new system startup costs, those costs may be outweighed by the greater expense of maintaining the legacy system. In addition, new Internet and World Wide Web technologies offer justice agencies a variety of options given the Internet's platform-independent nature.

Consequently, whether incorporating legacy systems or moving to new technology, courts are challenged to stay current with the latest advances in information systems. With the rapid rate of change in the technological environment, doing so requires highly trained staff and continuing education.

Technology and Data Standards

A range of federal and state standards have been developed to ensure justice information-sharing capabilities. Private industry has developed standards for many of the same purposes. They include standards for applications, data elements, document imaging, security and privacy, networks, and hardware. Courts are also beginning to develop standards, such as those for judgment reporting, which were developed jointly by a user group—the National Center for State Courts (NCSC)—and Associated Credit Bureaus, Inc.[6] Courts and justice agencies must understand and incorporate federal and state standards as they develop automated systems and plan for integration; failure to do so endangers the benefits of integrating the nation's justice information systems.

Federal standards relating to III, National Incident-Based Reporting System (NIBRS), the National Sex Offender Registry, and other major national programs are shaping the design of information systems at state and local levels. Although some of these standards may not apply directly to courts, they affect courts that are integrating information systems with justice agencies trying to comply with these standards. State justice agencies pursuing information systems integration are also setting standards related to the storage, maintenance, and exchange of justice data.[7]

Notwithstanding the significant efforts of government and industry to develop all manner of standards, additional standards governing technology, data integrity, and interoperability are still needed to help state and local agencies integrate.[8] The lack of standards, particularly in integration,

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6. These standards are on NCSC's World Wide Web site at www.ncsc.dni.us.

7. In Kansas, for example, the Kansas Bureau of Investigation (KBI) has developed application, data, imaging, network, messaging, and hardware standards and placed them on its World Wide Web site at www.kbi.state.ks.us.

8. To improve the quality, reliability, and readability of criminal history records exchanged among the states and between states and the Federal Government, SEARCH convened the National Task Force on Increasing the Utility of the Criminal History Record. The task force met over 2 years and, among other things, developed a standardized rap sheet for use among states. See SEARCH Group, Inc., 1995, *Increasing the Utility of the Criminal History Record: Report of the National Task Force*, Criminal Justice Information Policy series, Washington, DC: U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.

furthers piecemeal approaches to technology implementation, especially when agencies find their systems fail to communicate with others.

Human Resources

Managing, maintaining, and supporting information technology requires highly qualified staff. Many justice agencies have small or nonexistent information technology departments or departments staffed by employees who lack training. Information technology has become a major component of nearly every business, and a department or staff with technical expertise are essential for long-term planning, system support, and training of users in advanced applications.

As technology becomes more sophisticated and as the number of automated justice agencies increases, managers and other decisionmakers must plan and budget for a sufficient number of trained staff to support and maintain those systems. Complex automated information systems projects demand significant staff attention and support, and existing systems require ongoing maintenance and administration.

Recruiting and retaining individuals qualified in information technology is as difficult for the justice community as it is for government. Job descriptions in this area are often ill-defined, and government pay can significantly limit an agency's ability to compete with the private sector in attracting and retaining qualified staff. Information technology staff also require continuing education because of rapid advances in technology, and provisions must be made for their professional development.

Systems Development Life Cycle

Technology planning, acquisition, and implementation is not a one-time activity. The process is cyclical in nature, following what is known as the systems development life cycle, a process with several stages, including planning, acquisition, development, and implementation. However, the successful implementation of an automated system does not signal the end of the planning process. Systems implementation signals the *beginning* of a new phase of evaluation and planning, a phase that focuses on systems maintenance, upgrade, enhancement, and replacement.

With rapid advances in hardware and software, new system functionality is available almost immediately after a system is implemented. That is not to suggest that an agency postpone acquisition in anticipation of the "latest" system. It suggests that, after a system is installed, the planning process continue to take new technology, functionality, and capability into consideration. In addition, user expectations change quickly when new systems are implemented, and the demands placed on the system escalate.

Moreover, new federal and state reporting programs—such as Megan's Law, the Brady Law, and NIBRS—that affect law enforcement agencies

and the data they capture have come into effect. Courts and other justice agencies must continue to track federal and state justice information system initiatives and be aware of activities that may have an impact on information systems and include them in the planning cycle.

Systems development life-cycle planning enhances the planning for system upgrades or replacement and sets the stage for an orderly progression of hardware and software technologies. Justice system stakeholders and funding agencies must be educated about this process. They must embrace and adhere to the system development life cycle to maintain a successfully automated and integrated justice information system. Funding bodies must be convinced to apply life-cycle costing methods when allocating funds to account for downstream expenses associated with operation, maintenance, training, and coordination of change.

Strategic Information Technology Planning

Successfully automated and integrated information systems are preceded and accompanied by continual, comprehensive, and strategic planning, which allows system stakeholders to develop a roadmap for the future.

A good plan determines the range of user needs, identifies automation/integration priorities, and considers existing and potential federal and state technology and data standards. It focuses on the human and funding resources required to support these systems. It embraces the development life cycle. The plan addresses operational system specifications, hardware and software standards, the needs of user agencies, legacy systems, and the environment in which the automated system will work. Planning ensures that all system stakeholders have their needs addressed by the system. Strategic information technology planning also includes a complete business process review to find better, more effective, and more efficient ways of doing business.

Retaining qualified staff, understanding federal and state standards for justice information systems, and developing strong executive leadership will lay a foundation for initial and continued strategic planning, and for a well-designed, functional integrated system.

Security Issues

Security of information is important whether it protects an agency's internal records management system or is part of a global information network. Unwarranted access to data can breach the security and safety of operations, hinder or derail sensitive investigations, or implicate innocent people. The potential for security problems increases as agencies expand their operations beyond stand-alone computers and begin linking equipment to local and wide area networks and the Internet. Technology can be a double-edged sword: It provides easy, intuitive, and flexible data access

to geographically remote users, but in doing so, it also exposes data to unauthorized use.

Challenges also occur when individuals given access to data have the ability to add, delete, modify, and print data from automated systems. These new capabilities permit individuals to accidentally or purposely alter data from its original state. Data could also be printed and given to unauthorized individuals. These security problems traditionally have been addressed by measures built into the physical environment housing the computer systems, such as key access, retinal scanning, and, increasingly, iris scanning, automated fingerprint identification systems, and live-scan systems. These security precautions are meaningless, however, as computer systems are decentralized and users are able to access systems from remote locations. Software systems also have passwords and other security protocols built in to identify users and to authorize their use of the system in incremental steps, such as access, printing, adding, modifying, and deleting data. These features are normally reserved for system administrators. In addition, systems typically have transaction logs that track all uses, including systems and sections accessed, and all actions taken.

Security becomes even more important and difficult to address as users begin to link their systems, share information, or authorize the initiation of transactions within and between systems. When the arrest of an offender triggers the creation of prosecutor and court records, a system link is created that increases security risks.

Increased security risks give rise to such tools as firewalls and strong encryption programs. Firewalls employ a combination of software and hardware to separate networks into parts so that critical information is protected from outside attack. Encryption transforms messages into mathematical formulas that are indecipherable to unauthorized users. These measures protect systems from outside attack, but leave systems vulnerable to internal breaches.

System users must be educated about security so they do not unwittingly allow unauthorized users to access the system. Unauthorized users often gain access by learning passwords of authorized users. Unauthorized users, or “hackers,” access systems through “social engineering.” They gain the confidence of an insider to learn passwords and then use these passwords to enter the system. Technology alone cannot protect systems from outside invasion. Education and monitoring of internal operations is critical to guard against internal threats posed by disgruntled employees and external forces such as social engineering.

Integration requires trust, shared objectives, common corporate values, strong internal and external security controls, ongoing training, systems monitoring, and an active program of quality assurance.

National Task Force Findings

This project focuses on electronic information sharing among justice system agencies from the perspective of the courts. In late 1997 and early 1998, SEARCH and the National Center for State Courts (NCSC), on behalf of the National Task Force on Court Automation and Integration, surveyed court and justice agency personnel throughout the country to assess the level of integration in state and local justice agency information systems. The results were presented to the task force, and based on its review of the survey responses, the task force issued the following nine findings. Also listed are the sections of this report that relate to each finding.

Finding 1

The growing number of justice agencies pursuing integrated information system projects cite benefits such as cost savings, increased operating efficiencies, elimination of redundant data entry, improved decisionmaking, and increased public safety as motivating factors.

See chapter 4, Benefits of Integration, pages 29–34.

Finding 2

Forces driving justice system integration include increased pressure and desire to enhance service with existing resources, federal and state requirements to share information, increased demand for information not historically kept by court information systems, and technological advances.

See chapter 1, Introduction, section on driving forces, page 5.

Finding 3

Barriers to integration include limited resources, resistance to change (especially among elected officials), complexity of the justice process, fear of reduced customer service, distrust of others, hesitancy to rely on other agencies' technical staff, incompatibility of court and justice agency information systems, and disagreements over determination of data ownership. Courts lack practical resources, such as data standards, a peer network, documentation of successful systems, and off-the-shelf solutions, in developing integrated systems.

See chapter 5, Challenges to Integration, section on organizational and management issues, pages 37 and 38; and chapter 2, The Courts, subsection on integration, pages 12–15.

Finding 4

Strategic planning that involves policymakers, purse-string holders, managers, and technical staff and that includes a governance structure and process designed to resolve interagency differences and to leverage multiagency funding requests is vital to the success of integration projects. Successful planning addresses technology acquisition, upgrading or linking existing systems, system security, life-cycle funding, and recruiting, training, and retaining highly qualified technical staff.

See chapter 2, The Courts, subsection on integration, specifically text on recommendations, pages 12–15.

Finding 5

Successful integration projects focus on the day-to-day information-sharing needs of courts and other justice agencies and generate statistical and disposition information for federal and state agencies as by-products of these systems.

See chapter 2, The Courts, subsection on integration, specifically text on findings, pages 12–15.

Finding 6

States should facilitate local integration efforts by developing standards that support information sharing. While states should develop the framework for integration, local courts and justice agencies should maintain the responsibility for developing operational integrated systems.

See chapter 2, The Courts, subsection on integration, specifically text on findings, pages 12–15.

Finding 7

Information deemed part of the public record in court documents is often considered confidential by other justice agencies. Determinations will have to be made regarding the nature of information as the policy environment changes and electronic interchange allows for more access to information. When information is deemed confidential, system security measures will have to ensure that such information is made available only to authorized users.

See chapter 5, Challenges to Integration, section on legal issues, subsection on state dissemination and privacy policies, pages 35 and 36.

Finding 8

Integration requires a coordination, and perhaps even a consolidation, of agency funding efforts. Funding bodies must understand that money allocated to a coordinated project will yield greater returns than resources splintered among disconnected efforts. Furthermore, funding bodies must be convinced to apply life-cycle costing methods when allocating funds to account for downstream expenses associated with operation, maintenance, training, and coordination of change.

See chapter 5, Challenges to Integration, section on organizational and management issues, pages 37 and 38; section on technical issues, pages 38–42; and subsection on systems development life cycle, pages 41 and 42.

Finding 9

Information-sharing standards need to be identified and developed to facilitate integration efforts. These standards should address applications, data elements, document imaging, security and privacy, networks, and hardware.

See chapter 5, Challenges to Integration, section on technical issues, subsection on technology and data standards, pages 40 and 41.

National Task Force Recommended Strategies

The development and implementation of integrated justice information systems should be a top priority for all state and local judicial agencies in the coming years. To facilitate the development of integrated systems, the task force recommends the adoption of a coordinated strategy among national, state, and local judicial and justice system agencies to include the following four strategies:

- ❏ Establish the necessary organizational structures and processes to ensure effective strategic planning that is responsive to the requirements of all stakeholders.
- ❏ Develop, document, and disseminate standards to enable federal, state, and local justice agencies to share data regardless of the underlying technology.
- ❏ Undertake funding initiatives and incentives to encourage agencies to transfer proven technology and to design and test new solutions.
- ❏ Develop practical resources for courts to help them implement the systems they need, including establishment of a peer network, national clearinghouse, technical assistance, education and training, and hands-on guides.

Organization for Integration

Successful integration requires the development and adoption of a strategic planning process, a commitment to identify and do what is necessary to recruit and retain highly qualified technical staff, and an examination of the approaches to acquiring information technology, including life-cycle planning, leasing, outsourcing, use of consultants, cross-checking audits, and assessments. Other keys to successful integration include documentation, education and training, and evaluation.

A first step toward integration is to establish appropriate governance bodies, such as governing policy boards, steering committees, or advisory councils, that can provide vision, strategy, policy direction, and implementation oversight covering acquisitions, major projects, and studies. The policy board should include representatives from all affected federal, state, regional, and local entities, including the legislature or local funding agencies. The board should also include the state or local chief information officer (CIO) where the position exists.

Each project needs an executive sponsor to work with the legislature, budget officials, and agency heads, to deal with priorities and funding issues and to remove barriers encountered by implementation teams. The articulation of a vision and systemwide support for that vision are critical components of successful integration efforts.

Strong leadership is necessary to secure the cooperation and commitment of all key system agencies and actors, including representatives of the courts, prosecutor's office, law enforcement agencies, public defender's office, corrections, probation / parole agencies, private bar, and social services agencies. In addition, state and local legal authority for integration may be needed to get key players to the table and to allow cross-jurisdictional information sharing and cooperative funding arrangements.

State involvement should extend beyond legal authorization for integrated systems. States should be responsible for developing strategic plans, system architectures, and standards for statewide implementation. States should also work to ensure consistency among local agencies' efforts to develop standards that address their specific information system objectives.

Standards

Development of standards to ensure the collection, transmission, and exchange of data between courts and the bar, justice agencies, and treatment and service providers should be a high priority of national and state court and justice system management organizations. Such standards would apply to applications, data elements, document imaging, security and privacy, networks, and hardware. In addition, communications protocols —such as TCP / IP (Transmission Control Protocol / Internet Protocol), frame relay, Internet / intranet standards, and universal transaction format standards like XML (Extensible Markup Language) that allow users to design the system the way they like—should be researched to determine their applicability to the development of integrated information systems.

Funding

Justice agencies face significant challenges to funding integrated information systems. Agencies have significant investments in legacy systems that may have limited long-term use. Given the explosive growth and accelerated evolution of technology, policymakers, legislators, and other purse-string holders must adjust their historic approaches to funding.

National initiatives and incentives to encourage courts to transfer technology and to test innovative solutions are needed. National and state funding of research to develop standards is also needed. Detailed data on integrated system cost benefits should be developed to justify funding agencies' investments in integrated systems.

As the life cycle of systems continues to shorten, the procurement, maintenance, and upgrade costs of integrated information systems become ongoing, rather than periodic, obligations of funding agencies. These costs require the exploration of creative funding alternatives, such as outsourcing. Court and justice agency efforts to secure funding must be coordinated to yield the greatest returns.

Practical Resources

Practical resources are needed to aid courts in developing integrated information systems. They should include:

- ❑ A national clearinghouse and information exchange process to share information and resources.
- ❑ Technical assistance resources to help courts design, develop, and manage integrated systems, including assistance in strategic planning.
- ❑ A peer network, so courts can learn from the experience of others.
- ❑ A court integration planning guide to facilitate the development of comparable systems from jurisdiction to jurisdiction.
- ❑ Documented best practices in a set of case studies that would highlight the experiences of successful systems.
- ❑ Training for users of integrated systems to maximize benefits and ensure user satisfaction.

Task Force Participants

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Court Manager, County Criminal Courts at Law, Harris County, Texas

Mike Benzen
State Chief Information Officer
Missouri Office of Information Technology

Edward S. Berberian, Jr.
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Hon. Thomas M. Cecil
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Presiding Judge, Sacramento Superior and Municipal Courts

Regina M. Dembowski
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Committee for Public Counsel Services, Massachusetts

Geoff Gallas
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Barry Mahoney
President, Justice Management Institute, Denver, Colorado

Hon. Stephen A. Marcus
Presiding Judge, Division 42 Drug Court, Los Angeles, California

Mary Campbell McQueen
State Court Administrator, Supreme Court of Washington

Hon. William D. Missouri
Administrative Judge for the Seventh Judicial Circuit
Circuit Court for Prince George's County, Maryland

Hon. James F. Morrison
Representative, Kansas House of Representatives

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1. Mr. Webster was involved in the court task force effort first as National Center for State Courts staff, then as a task force member when he moved to his current state position.

2. Ms. Rondenell has since left the National Center for State Courts.

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Owen M. Greenspan
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Manager, Technical Assistance Services

Participants' Biographies

Mike Benzen

Mr. Mike Benzen is Chief Information Officer (CIO) for the state of Missouri and works in the Missouri Office of Information Technology. As CIO, Mr. Benzen is responsible for statewide strategic planning, monitoring information technology (IT) procurement, and directing the adoption of statewide IT policy and standards. Current initiatives include year 2000 (Y2K) compliance, electronic commerce, public data access, and data center consolidations. Before his appointment as CIO, Mr. Benzen was employed by the Missouri Department of Mental Health for 25 years, serving as Director of Information Technology for 4 years.

Mr. Benzen is President of the National Association of State Information Resource Executives (NASIRE) and participates on national committees regarding Y2K initiatives and IT workforce issues. Mr. Benzen has a master's degree in public administration from the University of Missouri. He is currently an adjunct faculty member at William Woods University, teaching computer science in the master of business administration program.

Edward S. Berberian, Jr.

Mr. Edward S. Berberian, Jr., has worked in the Marin County (California) District Attorney's Office since 1976 and is Assistant District Attorney in charge of the criminal division, a responsibility he assumed in August 1998. Attorneys and investigators under his supervision handle all criminal, consumer, and insurance fraud prosecutions, and any special operation investigations the office undertakes.

During the past 22 years, Mr. Berberian has been assigned to try all types of criminal prosecutions, including special-circumstance murder cases. In 1998, he was involved in the only trial in the past 35 years in California that considered whether an inmate was sane for the purpose of execution.

In addition to his trial caseload, Mr. Berberian has overseen the training of new deputies in his office, participated in instructional programs for Marin County law enforcement agencies, and taught regularly at Marin County Community College.

In 1987, Mr. Berberian was presented with the Outstanding Prosecutor Award for Marin County. In 1990, he received a Meritorious Service Award from the Marin County District Attorney. In 1991, he was nominated for the California District Attorneys Association's Outstanding Prosecutor of the Year Award and received the Outstanding Trial Attorney Award (Region 1) in 1991 from the Association of Government Attorneys in Capital Litigation.

He earned his bachelor's degree from the University of Arizona and his law degree from the University of San Francisco.

Hon. Thomas M. Cecil

Judge Thomas M. Cecil has served on the Sacramento Superior and Municipal Courts since March 1989 and is currently Presiding Judge. During his tenure on the bench, he has presided over the criminal departments in the municipal and superior courts. Judge Cecil has conducted felony trials for the past 4 years, the vast majority of which involved murder offenses.

For 6 years before his appointment to the bench, Judge Cecil served as Chief Counsel and Deputy Director of the California Department of Consumer Affairs. His responsibilities included lobbying the California legislature on issues affecting consumers, and overseeing the department's press relations, consumer education, and legal staff. As an attorney, Judge Cecil practiced in bankruptcy, corporate, family, and political law, and general business litigation. He also served as Special Counsel to the Joint Select Committee on Municipal Liability Insurance (1976) with the California legislature.

Judge Cecil previously served as a member and Chair of the Pacific Bell Telecommunications Consumer Advisory Panel (1988–1991). He is now a member and current Chair of the California Judicial Council's Advisory Committee on Court Technology.

Regina M. Dembowski

Ms. Regina M. Dembowski has served as Director of the Private Attorney and Indigent Court Cost Payment Department (a division of the Committee for Public Counsel Services) since 1984. The department records more than 185,000 private attorney assignments per year and processes more than 225,000 private attorney bills and more than 15,000 court cost vendor bills annually in Massachusetts. The department works with more than 5,000 vendors throughout the state.

Ms. Dembowski's recent accomplishments include spearheading the installation of the "Telebill" payment system, which enables private attorneys to

file their bills by phone. This application has resulted in the direct processing of more than 70 percent of bills by vendors into computer files. The system has resulted in quicker, more accurate payments and an extreme reduction in paperflow and subsequent storage needs. In addition, the department was able to reduce its operational staff by six full-time employees in less than 2 years, primarily through attrition.

Ms. Dembowski is also responsible for implementing the online transfer of data files to the state Comptroller's Office, replacing a manual data entry system. She is currently working on phase three of the payment automation plan, called "PC Bill."

Geoff Gallas

Dr. Geoff Gallas is a Principal of Aequitas, an automation, training, and management consulting company to courts, justice agencies, and technology partners. He previously served as Executive Administrator in the First Judicial District of Pennsylvania, working under direction of the Pennsylvania Supreme Court, the state court administrator, and three presiding and administrative judges.

In that position, he was responsible for the Philadelphia Court of Common Pleas, Municipal Court, and Traffic Court from December 1991 to April 1996. During a 6-year period in which the district adhered to a zero-growth budget, Dr. Gallas initiated projects to cope with zero growth, including lease and maintenance contract negotiations to achieve savings of $3 million a year, revenue enhancements to generate $4.2 million a year, technology and training initiatives to accommodate staff reductions and increase productivity, and master space planning to anticipate future requirements. Under his direction, the city and the district designed, constructed, and occupied the Philadelphia Criminal Justice Center (CJC) with 64 judicial officers and 900 judicial and executive branch staff. The CJC opening brought a state-of-the-art criminal justice information system online, integrating telecommunications, image, voice, and data within a "smart" building. Other important projects included a multiyear civil caseflow reduction program to bring Philadelphia in compliance with American Bar Association standards, and reorganization of the Traffic Court to bring in more than $95 million in revenue for the city and the state over a 10-year period.

Dr. Gallas previously served as Vice President of Research and Technical Services for the National Center for State Courts, and as Dean of the Court Executive Development Program of the Institute for Court Management (ICM) for more than 10 years. Dr. Gallas, who is widely published, has a bachelor's degree from Wesleyan University, master's degrees from Harvard University and the University of Southern California (USC), and a doctorate from USC. He is also an ICM Fellow.

Barry Mahoney

Dr. Barry Mahoney is President of the Justice Management Institute (JMI), a Denver-based nonprofit organization engaged in education, research, and technical assistance focused on the operations of courts and other organizations involved in the administration of justice. He is responsible for management and program development for JMI and for directing JMI projects on reduction of litigation cost and delay, caseflow management, trial management, sentencing policy, drug courts, and strategic planning.

His prior professional work includes extensive experience in litigation as an Assistant Attorney General for the state of New York (1962–1967) and as a lawyer in private practice in New York City (1967–1971). From 1971 to 1973, he was First Assistant Counsel for the New York State Division of Criminal Justice Services. From 1973 to 1978, Dr. Mahoney was with the National Center for State Courts (NCSC), where he was the Associate Director responsible for all of NCSC's national-scope research and technical assistance programs. In 1978–1979 and 1982–1983, Dr. Mahoney was Director of the London office of the Vera Institute of Justice. From 1979 to 1982 and 1983 to 1992, he was with the NCSC's Institute for Court Management, where he led a number of research and technical assistance projects, including those focusing on court delay reduction, intermediate sanctions, and fine use and collection.

Hon. Stephen A. Marcus

Judge Stephen A. Marcus is Presiding Judge for the first drug court in Los Angeles County, California. He directly supervised the planning and implementation of the drug court, which is a multiagency criminal justice project. Judge Marcus serves as Chair of the Drug Court Steering Committee and is working on expanding the drug court to two additional court sites, obtaining funding for it and its ancillary services, conducting numerous drug court workshops, and testifying before legislative bodies. In addition to his drug court calendar, Judge Marcus conducts jury trials and preliminary hearings.

Previously, Judge Marcus worked on high-volume arraignment and trial court cases in the Hollywood branch courthouse and handled felony preliminary hearings in the San Fernando courthouse, including 30 homicides. Before that, he served as prosecutor with the Los Angeles District Attorney's Office for 13 years. Judge Marcus is President of the California Association of Drug Court Professionals, the first statewide organization of drug court judges and professionals in California. He also serves on the board of directors of the California Judges Association's executive board.

Mary Campbell McQueen

Ms. Mary Campbell McQueen, State Court Administrator for the Supreme Court of Washington, took office on April 10, 1987. She served as Director

of Judicial Services within the state's Office of the Administrator for the Courts from 1979 to 1987.

Ms. McQueen has served as Court Planning Officer, District of Columbia Courts; Planning Coordinator, Kentucky Department of Justice; Manager, Evaluation Unit, Kentucky Department of Corrections; member, National Center for State Courts (NCSC) board of directors; President, Conference of State Court Administrators (1995–1996); member, American Bar Association (ABA), Judicial Administration Division (Lawyers Conference); member, Washington State Bar Association; Chair, Court Management Council; member, Judicial Information Systems Committee; and member, Board for Trial Court Education and Ethics Advisory Committee. Ms. McQueen was awarded the ABA / NCSC Jury Standards Award in 1989 and the NCSC's Distinguished Service Award in 1991.

Ms. McQueen received her bachelor of arts degree from the University of Georgia and law degree from the Seattle University Law School.

Hon. William D. Missouri

Judge William D. Missouri serves as Administrative Judge for the Seventh Judicial Circuit, Circuit Court for Prince George's County, Maryland. Before that, he served as Associate Judge, Seventh Judicial Circuit (1988–1992); Administrative Judge, Fifth District Court (1987–1988); and Associate Judge, Fifth District Court (1985–1987). Judge Missouri serves as a member of committees on child support enforcement, judicial compensation, and circuit court differentiated case management. Judge Missouri served on the Judicial Institute of Maryland's board of directors from 1991 to 1995 and currently serves as a faculty member on new trial judge orientation within the institute.

Hon. James F. Morrison

Rep. James F. Morrison was first elected to the Kansas House of Representatives in 1992 and was subsequently reelected in 1994 and 1996. He was the only freshman in the Kansas legislature to hold a Vice Chair of a joint committee—the Joint Committee on Computers and Telecommunications. Since 1994, Rep. Morrison has been the Vice Chair and Chair of the Joint Committee on Computers and Telecommunications and Vice Chair of the Health and Human Services Committee. He is a member of the committees on education and health care fund oversight stabilization. Rep. Morrison also is the House appointee to the Kansas Information Resources Council and Chair of the National Conference of State Legislatures' Communications and Information Policy Committee.

Rep. Morrison attended the University of Kansas (1960–1964), majoring in comparative biochemistry and physiology. He graduated from the Southern College of Optometry in Memphis, Tennessee, with bachelor of science and doctor of optometry degrees. After leaving Memphis in 1967, he entered into

an optometric partnership in Garden City, Kansas. In April 1969, he returned to his hometown of Colby, Kansas, and began his practice.

James R. Neuhard

Mr. James R. Neuhard is Director of the State Appellate Defender's Office in Detroit, Michigan. Mr. Neuhard is the former Chair and special advisor to the American Bar Association (ABA) Special Committee on Funding the Justice System. In this position, he was charged with the ABA's highest priority—to investigate and attack the systemwide crisis in funding for all aspects of the justice system. Mr. Neuhard was also a member of the State Justice Initiatives Committee, which was formed to implement solutions to the crisis.

Mr. Neuhard serves as President of the National Equal Justice Library and is past President of the National Legal Aid and Defender Association (NLADA). He is a member of the ABA's Special Committee on the Constitution in a Free Society, which published the report *Criminal Justice in Crisis*. From 1985 to 1992 and again in 1995, Mr. Neuhard served as Chair of the ABA's Bar Information Project, which provides free aid to state and local courts and bar associations seeking to improve their assigned counsel or indigent defense delivery systems.

Mr. Neuhard has served in many other capacities, including Secretary and past President of Criminal Defense Attorneys of Michigan; Presidential Emissary of the ABA; co-Chair of the Michigan Appellate Bench-Bar Conference; and member of the board of directors, NLADA Insurance Corporation.

Dennis E. Nowicki

Mr. Dennis E. Nowicki is Chief of the Charlotte-Mecklenburg Police Department in North Carolina, leading a department of more than 1,750 members. He has worked in policing for 33 years. He was the Executive Director of the Illinois Criminal Justice Information Authority (ICJIA) for 2 years and Chief of the Joliet (Illinois) Police Department for 3 years. He began his policing career with the Chicago Police Department, where he spent 25 years and achieved the rank of Deputy Superintendent.

His varied career in Chicago included such assignments as beat patrol officer, area task force member, district tactical officer, burglary detective, patrol sergeant, robbery unit sergeant, property crimes unit lieutenant, and administrative aide to deputy superintendents in the bureaus of technical services, investigative services, and operational services. He also served as Commander of the youth division. As Deputy Superintendent for the Bureau of Administrative Services for 6 years, Chief Nowicki administered nine divisions: internal affairs, auditing and internal control, personnel, training, data systems, finance, research and development, professional counseling, and management and labor affairs.

As the Chief of the Joliet Police Department, he led a department of 191 sworn and 43 civilian employees. He developed innovative ways to implement community problem-oriented policing (CPOP) throughout the department. Gov. Jim Edgar appointed him Executive Director of the ICJIA in early 1992. The ICJIA is a state agency responsible for criminal justice research, planning, and information systems development, has a staff of 100, and is governed by a 15-member board that includes top criminal justice officials at the state, county, and municipal levels, as well as private citizens.

He was appointed Chief of the newly consolidated Charlotte-Mecklenburg Police Department in April 1994 and has since focused on leading his department in applying CPOP in all its operations. The department is currently undergoing a major reengineering effort to redesign its operating systems as it upgrades its information technology. The department is recognized as one of the most advanced CPOP agencies in the country.

Chief Nowicki has a bachelor's degree in personnel management from Northwestern University and a master of science degree in management of public services from DePaul University. He has taught graduate courses in public policy development at DePaul University and public-sector labor relations at Roosevelt University.

Kenneth R. Palmer

Florida State Courts Administrator Kenneth R. Palmer assumed office on December 26, 1984, having served for 5 years as Deputy State Courts Administrator. Previously, he worked in the criminal justice system for 14 years, 10 of which were in the Office of the State Courts Administrator. Mr. Palmer has attended the Court Executive Development Program of the Institute for Court Management and has co-authored "The Successful Meeting Master Guide for Business and Professional People," published in the *Florida State University Law Review* and the *American Bar Association Journal.* Mr. Palmer chairs Florida's Criminal and Juvenile Justice Information Systems Council and is a member of the board of directors of the Conference of State Court Administrators. He serves on the national advisory boards for Judges Pro Tem, Telephone Interpretation, and Integration of Court and Criminal Justice Information Systems.

Mr. Palmer earned bachelor's and master's degrees from Florida State University.

George B. Riggin, Jr.

Mr. George B. Riggin, Jr., has served as the State Court Administrator for the state of Maryland since May 9, 1990. Previously, he was involved in a private legal practice (1988–1990), served as the Assignment Commissioner for the Circuit Court for Baltimore City (1974–1988), and was Founder and Executive Director of Tai Pan Import Corporation (1980–1984).

Mr. Riggin is former Chair of the Maryland State Judicial EDP Policy Committee, State Task Force on Arrest to Disposition Reporting, Baltimore Circuit Court Civil Automation Committee, and the Baltimore Circuit Court Computer Users Group. He was a member of the Governor's Criminal Justice Systems Advisory Board, the Mayor's Criminal Justice Information System User Group, One-trial/One-day Jury System Development Group, and the Maryland State Judicial Statistics Task Force. Mr. Riggin is Chair of the Operations and Management Committee and Commission to Study the Future of Maryland Courts, and is co-Chair of the Joint Technology Committee of the Conference of State Court Administrators and National Association for Court Management.

Mr. Riggin received a bachelor of arts degree from the University of Maryland and a law degree from the University of Maryland School of Law.

Robert T. Roper

Dr. Robert T. Roper is Director of Information Services and Data Processing for the Colorado Judicial Branch and currently manages the implementation of the Colorado Judicial Branch's statewide automated case tracking, financial, and probation information system. He is one of the leaders in the effort to integrate criminal justice information in Colorado, which recently received legislative approval to fund the statewide project.

Dr. Roper is also a national court management consultant and trainer and a member of the board of directors for the Justice Management Institute. In addition, he has worked as a consultant for the National Center for State Courts (NCSC) in evaluation research and weighted caseload studies. As a private consultant, Dr. Roper is actively involved in consulting and training activities in trial courts in the United States and internationally. These activities involve information systems design, court database access policies, future trends in court technology, project and caseflow management, introduction to personal computers for court personnel, statistics and graphics in courts, methods of coping with technological change, and court evaluation projects.

Dr. Roper was a Senior Staff Associate at the NCSC's Institute for Court Management (ICM) between 1988 and 1992. He designed the NCSC/ICM technology curriculum programs for courts and directed Phase III of ICM's Court Executive Development Program. Dr. Roper also designed and taught a course on conducting court evaluation projects.

Before joining ICM in Denver, Dr. Roper was a Senior Staff Associate at NCSC in Williamsburg, Virginia, where he directed the Court Statistics and Information Management Project between 1985 and 1988.

Charles Sexson

Mr. Charles Sexson, Assistant Director, Kansas Bureau of Investigation, currently administers the bureau's Criminal Justice Information Services (CJIS) division, which is the state's central repository for adult and juvenile offender information. CJIS programs include the Automated Fingerprint Identification System (AFIS), Adult Records Section, Juvenile Justice Information System, Kansas Incident-Based Reporting System, Offender Registration Program, Missing Persons Clearinghouse, and the Automated Statewide Telecommunications and Records Access System (ASTRA).

He previously worked as Special Agent Supervisor of the Intelligence / Organized Crime Unit and Special Agent in Charge of the Narcotics Division.

Mr. Sexson serves as a member of the advisory board of the Kansas Criminal Justice Coordinating Council, as a member of the Kansas S.T.O.P. Violence Against Women and Children Committee, and as Kansas' representative to the Membership Group of SEARCH, The National Consortium for Justice Information and Statistics.

Mr. Sexson has a master's degree in administration from Wichita State University and is a graduate of the Federal Bureau of Investigation National Academy.

Arthur Sims

Since February 1994, Arthur Sims has served as Executive Officer and Clerk for the Riverside County (California) Consolidated / Coordinated Superior and Municipal Courts. Mr. Sims directs the provision of all administrative and ministerial support to the consolidated / coordinated benches, which consist of 68 judicial officers and a staff of 694 employees. Mr. Sims is a former member of the board of directors of the National Association for Court Management and is a former President of both the California Association for Superior Court Administration and the Southern California Trial Court Administrators Association. He is currently a member of the Metropolitan Superior Courts Association, comprising judges and court administrators of the nine largest Superior Courts of California.

Mr. Sims serves on several California Judicial Council committees, including the Advisory Committee on Trial Court Staffing, Court Administrators Standing Advisory Committee Court, Court Technology Task Force, Evaluation and Appeals Committee of the State Trial Court Budgeting Commission, Judicial Administration Institute of California, and Continuing Judicial Education and Research.

Walter F. Smith

Since July 1997, Walter F. Smith has served as Trial Court Administrator for the 12th Judicial Circuit (De Soto, Manatee, and Sarasota Counties) in Florida. He is responsible for all nonjudicial activities of the court in the

three counties that make up the 12th Judicial Circuit. These activities include planning organization needs, budgeting for the circuit with the state and three counties, monitoring court caseloads, determining personnel needs and space allocations, and overseeing all court purchases. In addition, Mr. Smith is responsible for working with the judiciary in planning the future of the court in the 12th Judicial Circuit.

Previously, Mr. Smith was the Criminal Justice Planning Coordinator with the Sarasota County Government (1995–1997), Deputy Director for the Pretrial Services Resource Center (1988–1995), and Project Director of the center's State Court Processing Statistics Program (1983–1995).

Mr. Smith received master of arts and bachelor of arts degrees in sociology from the University of Florida and an administrative arts degree in journalism from Miami Dade North Community College.

Patrick J. Sullivan, Jr.

Sheriff Patrick J. Sullivan, Jr., of the Arapahoe County Sheriff's Office in Colorado, began his career with the Littleton (Colorado) Police Department as a Police Officer / Dispatcher in March 1962. In February 1966, he began an active duty commitment with the U.S. Army, which was completed in July 1969. He returned to the Littleton Police Department, where he worked his way up to the rank of Lieutenant in Charge of the Patrol Division.

In January 1979, he accepted the position of Patrol Captain with the Arapahoe County Sheriff's Office. He later directed the Criminal Investigation Division, was appointed Undersheriff in 1983, and became Sheriff in June 1983 when the incumbent died. He was elected Sheriff in his own right in November 1984 and was subsequently reelected three times.

Sheriff Sullivan is very involved in professional and community activities. He is a member of the President's National Commission on Crime Prevention and Control; a member of the National Sheriffs' Association's (NSA's) Executive Committee and board of directors and Chair of its Law and Legislative Committee; a member of the Commission for the Accreditation of Law Enforcement Agencies; a member of the National Law Enforcement and Correction Technology Advisory Board and the Littleton Breakfast Optimist Club; and Chair of Citizens Against Legalizing Marijuana.

He also has chaired the search committee for the Director of the Colorado Bureau of Investigation; was a member of the Denver Regional Council of Governments' Prison Diagnostic Unit Site Selection Committee; is former President of the County Sheriffs of Colorado, Inc., and past Chair of its Legislative Committee; is past Chair of the NSA's Uniform Crime Reporting Committee; and is a member of the Governor's Cabinet Selection Committee for Position of Executive Director for the Department of Corrections.

Lawrence P. Webster

Mr. Lawrence P. Webster is Director of the Administrative Office of the Courts for the state of Delaware. He previously served as Executive Director of Court Technology Programs at the National Center for State Courts, where he was responsible for national-scope technology research and information exchange. He was also involved in technology education and consulting.

He has delivered more than 60 seminars, presentations, and courses related to technology in the justice system. He was the principal author of *Automating Court Systems* and has prepared or assisted with more than 30 other books, articles, and papers. Mr. Webster also served as Director of Data Processing for the Utah courts, Manager of Operations and Development for the Colorado District Attorney's Council, and Systems Manager for the U.S. Attorney in Denver, Colorado, and the District Attorney in Golden, Colorado. He holds a master's degree in judicial administration from the University of Denver College of Law, is a Fellow of the Institute for Court Management (ICM), and is a graduate of ICM's Court Technology Certificate Program.

Bob Wessels

Mr. Bob Wessels is Court Manager for the 15 County Criminal Courts at Law in Harris County, Texas, a position he has held since 1976. He received his bachelor of business administration degree from Sam Houston State University and his master of arts degree from the University of Houston at Clear Lake, and he is a Fellow of the Institute for Court Management (ICM). He has taught court management, judicial administration, and management information systems as an Adjunct Professor at the University of Houston at Clear Lake, Sam Houston State University, ICM, and the Texas College for New Judges.

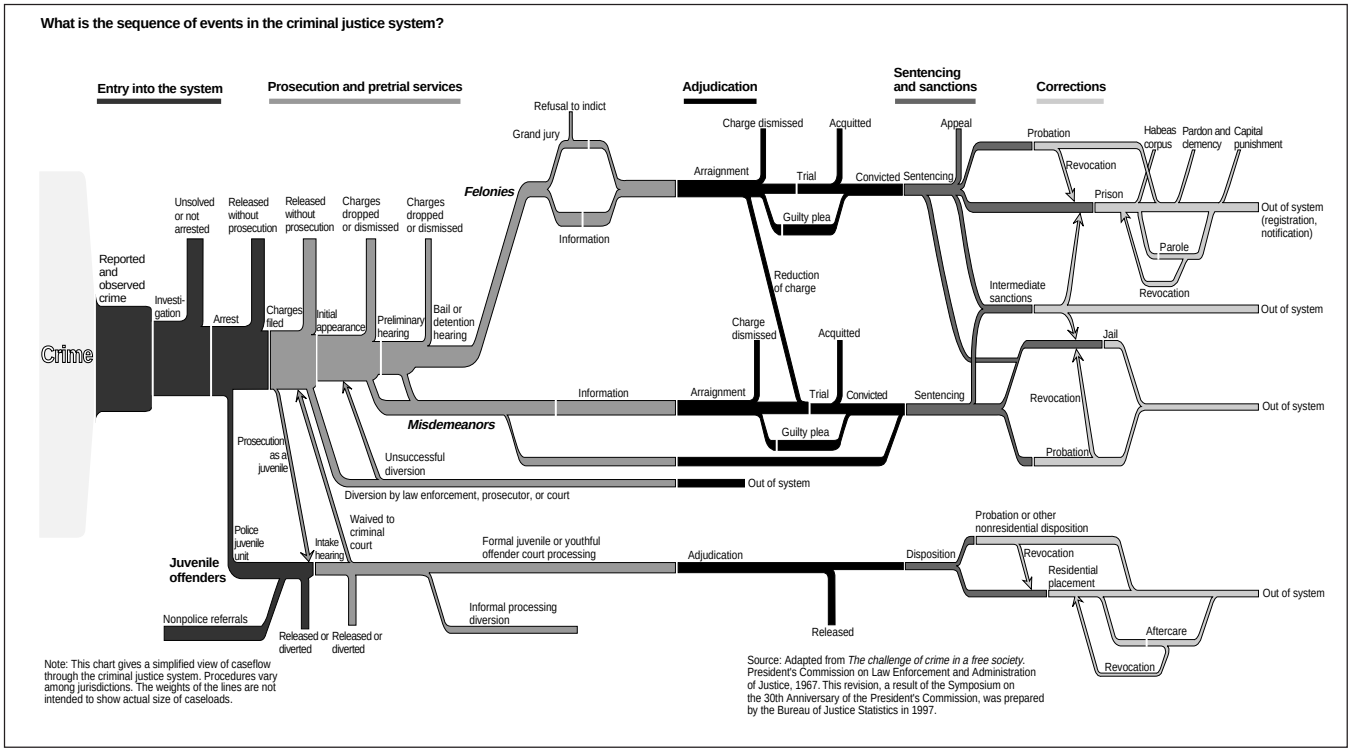
In his current capacity, Mr. Wessels is responsible for caseflow management, budget, legislative and governmental liaison, management information systems, court support services, policy development, and evaluation. He currently serves as a member of the Judicial Committee on Information Technology recently established by the Texas Legislature and appointed by the Chief Justice of the Texas Supreme Court.

Mr. Wessels is a member of the National Association for Court Management (NACM), currently serving as the association's immediate past President. He is a member of the board of directors of the National Center for State Courts and the Justice Management Institute. He is a member of the Conference of State Court Administrators (COSCA)/NACM Joint Technology Committee, the COSCA Statistics Committee, and numerous other state and local committees in criminal justice administration, policy, and corrections.

Criminal Justice System Caseflow

The sequence of the events in the criminal justice system is presented in figure 1. This caseflow graphic can be found on the World Wide Web page of the Bureau of Justice Statistics (BJS), U.S. Department of Justice (DOJ), at www.ojp.usdoj.gov/bjs/pub/pdf/cjsflowbw.pdf. The following narrative describes each element of the sequence.

Figure 1 Sequence of Events in the Criminal Justice System



Source: World Wide Web page of the Bureau of Justice Statistics, www.ojp.usdoj.gov/bjs/pub/pdf/cjsflowbw.pdf.

Private Sector Initiates the Response to Crime

The first response may come from individuals, families, neighborhood associations, businesses, industry, agriculture organizations, educational institutions, the media, or other private services.

It involves crime prevention and participation in the criminal justice process once a crime has been committed. Private crime prevention is more

than providing private security or installing burglar alarms or participating in neighborhood watch groups. It also includes a commitment to stop criminal behavior by not engaging in it or condoning it when it is committed by others.

Citizens participate directly in the criminal justice process by reporting crime to the police, by being a reliable participant (for example, a witness or a juror) in a criminal proceeding, and by accepting the disposition of the system as just or reasonable. As voters and taxpayers, citizens also participate in criminal justice through the policymaking process, which affects how the criminal justice process operates, the resources available to it, and its goals and objectives. At every stage of the process—from the original formulation of objectives to the decision about where to locate jails and prisons to the reintegration of inmates into society—the private sector has a role to play. Without its involvement, the criminal justice process cannot serve the citizens it is intended to protect.

Response to Crime and Public Safety Involves Many Agencies and Services

Many services needed to prevent crime and make neighborhoods safe are supplied by noncriminal justice agencies, including agencies whose primary concern is public health, education, welfare, public works, and housing. Individual citizens and public- and private-sector organizations have joined with criminal justice agencies to prevent crime and make neighborhoods safe.

Criminal Cases Are Brought by the Government Through the Criminal Justice System

Offenders are apprehended, tried, and punished by means of a loose confederation of agencies at all levels of government. The American system of justice has evolved from English common law into a complex series of procedures and decision. Founded on the concept that crimes against an individual are crimes against the state, the American justice system prosecutes individuals as though they victimized all of society. However, crime victims are involved throughout the process, and many justice agencies have programs that provide help for victims.

There is no single criminal justice system in this country. We have many similar systems, but each one is unique. Criminal cases may be handled differently in each jurisdiction, but court decisions based on the due process guarantees of the U.S. Constitution require that specific steps be taken

in the administration of criminal justice so that the individual will be protected from undue intervention from the state.

The description of the criminal and juvenile systems that follows portrays the most common sequence of events in response to serious criminal behavior.

Entry Into the System

The justice system does not respond to most crimes because they are not discovered by or reported to the police. Law enforcement agencies learn about crimes from the reports of victims or other citizens, from discovery by police officers in the field, from informants, or from investigative and intelligence work.

Once a law enforcement agency has established that a crime has been committed, a suspect must be identified and apprehended for the case to proceed through the system. Sometimes, a suspect is apprehended at the scene; however, identification of a suspect sometimes requires an extensive investigation. Often, no one is ever identified or apprehended. In some instances, a suspect is arrested, and later the police determine that no crime was committed and the suspect is released.

Prosecution and Pretrial Services

After an arrest, law enforcement agencies present information about the case and about the accused to the prosecutor, who will decide if formal charges should be filed with the court. If no charges are filed, the accused must be released. The prosecutor can also drop charges after making efforts to prosecute (nolle prosequi).

A suspect charged with a crime must be taken before a judge or magistrate without unnecessary delay. At the initial appearance, the judge or magistrate informs the accused of the charges and decides whether there is probable cause to detain the accused person. If the offense is not serious, the determination of guilt and assessment of a penalty may also occur at this stage.

Often, the defense counsel is also assigned at the initial appearance. All suspects prosecuted for serious crimes have a right to be represented by an attorney. If the court determines the suspect is indigent and cannot afford such representation, the court will assign counsel at the public's expense.

A pretrial-release decision may be made at the initial appearance but may occur at other hearings or may be changed at another time during the process. Pretrial release and bail were originally intended to ensure appearance at trial. However, many jurisdictions permit pretrial detention of defendants accused of serious offenses and deemed to be dangerous to prevent them from committing crimes before trial.

The court often bases its pretrial decision on information about the defendant's drug use, residence, employment, and family ties. The court may decide to release the accused on his or her recognizance or into the custody of a third party after posting a financial bond or on the promise of satisfying certain conditions such as taking periodic drug tests to ensure drug abstinence.

In many jurisdictions, the initial appearance may be followed by a preliminary hearing. The main function of this hearing is to discover if there is probable cause to believe that the accused committed a known crime within the jurisdiction of the court. If the judge does not find probable cause, the case is dismissed; however, if the judge or magistrate finds probable cause for such a belief, or the accused waives his or her right to a preliminary hearing, the case may be bound over to a grand jury.

A grand jury hears evidence against the accused presented by the prosecutor and decides if there is sufficient evidence to bring the accused to trial. If the grand jury finds sufficient evidence, it submits to the court an indictment, a written statement of the essential facts of the offense charged against the accused.

If the grand jury system is used, the grand jury may also investigate criminal activity generally and issue indictments called grand jury originals that initiate criminal cases. These investigations and indictments are often used in drug and conspiracy cases that involve complex organizations. After such an indictment, law enforcement tries to apprehend and arrest the suspects named in the indictment.

Misdemeanor cases and some felony cases proceed by the issuance of an information, a formal, written accusation submitted to the court by a prosecutor. In some jurisdictions, indictments may be required in felony cases. However, the accused may choose to waive a grand jury indictment and, instead, accept service of an information for the crime.

In some jurisdictions, defendants, often those without prior criminal records, may be eligible for diversion from prosecution subject to the completion of specific conditions such as drug treatment. Successful completion of the conditions may result in the dropping of charges or the expunging of the criminal record where the defendant is required to plead guilty before the diversion.

Adjudication

Once an indictment or information has been filed with the trial court, the accused is scheduled for arraignment. At the arraignment, the accused is informed of the charges, advised of the rights of criminal defendants, and asked to enter a plea to the charges. Sometimes, a plea of guilty is the result of negotiations between the prosecutor and the defendant.

If the accused pleads guilty or accepts penalty without admitting guilt (a plea of nolo contendere), the judge may accept or reject the plea. If the plea is accepted, no trial is held and the offender is sentenced at this proceeding or at a later date. The plea may be rejected and the accused may proceed to trial if, for example, the judge believes that the accused may have been coerced.

If the accused pleads not guilty or not guilty by reason of insanity, a date is set for the trial. A person accused of a serious crime is guaranteed a trial by jury. However, the accused may ask for a bench trial where the judge, rather than a jury, serves as the finder of fact. In both instances the prosecution and defense present evidence by questioning witnesses while the judge decides on issues of law. The trial results in acquittal or conviction on the original charges or on lesser included offenses.

After the trial, a defendant may request appellate review of the conviction or sentence. In some cases, appeals of convictions are a matter of right; all states with the death penalty provide for automatic appeal of cases involving a death sentence. Appeals may be subject to the discretion of the appellate court and may be granted only on acceptance of a defendant's petition for a writ of certiorari. Prisoners may also appeal their sentences through civil rights petitions and writs of habeas corpus where they claim unlawful detention.

Sentencing and Sanctions

After a conviction, sentence is imposed. In most cases, the judge decides on the sentence, but in some jurisdictions the sentence is decided by the jury, particularly for capital offenses.

In arriving at an appropriate sentence, a sentencing hearing may be held at which evidence of aggravating or mitigating circumstances is considered. In assessing the circumstances surrounding a convicted person's criminal behavior, courts often rely on presentence investigations by probation agencies or other designated authorities. Courts may also consider victim impact statements.

The sentencing choices that may be available to judges and juries include one or more of the following:

- ❑ The death penalty.
- ❑ Incarceration in a prison, jail, or other confinement facility.
- ❑ Probation, which allows the convicted person to remain at liberty but subject to certain conditions and restrictions such as drug testing or drug treatment.
- ❑ Fines, primarily applied as penalties for minor offenses.
- ❑ Restitution, requiring the offender to pay compensation to the victim.

In some jurisdictions, offenders may be sentenced to alternatives to incarceration that are considered more severe than straight probation but less severe than a prison term. Examples of such sanctions include boot camps, intense supervision often with drug treatment and testing, house arrest and electronic monitoring, denial of federal benefits, and community service.

In many jurisdictions, the law mandates that persons convicted of certain types of offenses serve a prison term. Most jurisdictions permit the judge to set the sentence length within certain limits, but some have determinate sentencing laws that stipulate a specific sentence length that must be served and cannot be altered by a parole board.

Corrections

Offenders sentenced to incarceration usually serve time in a local jail or a state prison. Offenders sentenced to less than 1 year generally go to jail; those sentenced to more than 1 year go to prison. Persons admitted to the federal system or a state prison system may be held in prison with varying levels of custody or in a community correctional facility.

A prisoner may become eligible for parole after serving part of his or her sentence. Parole is the conditional release of a prisoner before the prisoner's full sentence has been served. The decision to grant parole is made by an authority such as a parole board, which has power to grant or revoke parole or to discharge a parolee altogether. The way parole decisions are made varies widely among jurisdictions.

Offenders may also be required to serve out their full sentences before release (expiration of term). Those sentenced under determinate sentencing laws can be released only after they have served their full sentence (mandatory release) less any "good-time" received while in prison. Inmates get good-time credits against their sentences automatically or by earning them through participation in programs.

If released by a parole board decision or by mandatory release, the releasee will be under the supervision of a parole officer in the community for the balance of his or her unexpired sentence. This supervision is governed by specific conditions of release, and the releasee may be returned to prison for violations of such conditions.

Recidivism

Once the suspects, defendants, or offenders are released from the jurisdiction of a criminal agency, they may be processed through the criminal justice system again for a new crime. Long-term studies show that many suspects who are arrested have prior criminal histories and those with a greater number of prior arrests were more likely to be arrested again. The courts take prior criminal history into account at sentencing; most prison

inmates have a prior criminal history, and many have been incarcerated before. Nationally, about half the inmates released from state prison will return to prison.

Juvenile Justice System

Juvenile courts usually have jurisdiction over matters concerning children, including delinquency, neglect, and adoption. They also handle "status offenses," such as truancy and running away, which are not applicable to adults. State statutes define which persons are under the original jurisdiction of the juvenile court. The upper age of juvenile court jurisdiction in delinquency matters is 17 years in most states.

The processing of juvenile offenders is not entirely dissimilar to adult criminal processing, but crucial differences exist. Many juveniles are referred to juvenile courts by law enforcement officers, but many others are referred by school officials, social services agencies, neighbors, or parents for behavior problems or conditions that have been determined to require intervention by the formal system.

At arrest, a decision is made either to send the matter further into the justice system or to divert the case out of the system, often to alternative programs. Examples of alternative programs include drug treatment, individual or group counseling, or referral to educational and recreational programs.

When juveniles are referred to the juvenile courts, the court's intake department or the prosecuting attorney determines whether sufficient grounds exist to warrant filing a petition that requests an adjudicatory hearing or a request to transfer jurisdiction to criminal court. At this point, many juveniles are released or diverted to alternative programs.

All states allow juveniles to be tried as adults in criminal court under certain circumstances. In many states, the legislature *statutorily excludes* certain (usually serious) offenses from the jurisdiction of the juvenile court regardless of the age of the accused. In some states and under certain circumstances at the federal level, prosecutors have the *discretion* either to file criminal charges against juveniles directly in criminal courts or to proceed through the juvenile justice process. The juvenile court's intake department or the prosecutor may petition the juvenile court to *waive* jurisdiction to criminal court. The juvenile court also may order *referral* to criminal court for trial as adults. In some jurisdictions, juveniles processed as adults may be, upon conviction, sentenced to either an adult or a juvenile facility.

In those cases where the juvenile court retains jurisdiction, the case may be handled formally by filing a delinquency petition or informally by diverting the juvenile to other agencies or programs in lieu of further court processing.

If a petition for an adjudicatory hearing is accepted, the juvenile may be brought before a court quite unlike the court with jurisdiction over adult offenders. Despite the considerable discretion associated with juvenile court proceedings, juveniles are afforded many of the due-process safeguards associated with adult criminal trials. Several states permit the use of juries in juvenile courts; however, given the U.S. Supreme Court holding that juries are not essential to juvenile hearings, most states do not make provisions for juries in juvenile courts.

In disposing of cases, juvenile courts usually have far more discretion than adult courts. In addition to such options as probation, commitment to a residential facility, restitution, or fines, state laws grant juvenile courts the power to order removal of children from their homes to foster homes or treatment facilities. Juvenile courts also may order participation in special programs aimed at shoplifting prevention, drug counseling, or driver education.

Once a juvenile is under juvenile court disposition, the court may retain jurisdiction until the juvenile legally becomes an adult (at age 21 in most states). In some jurisdictions, juvenile offenders may be classified as youthful offenders; this classification can lead to extended sentences.

Following release from an institution, juveniles are often ordered to a period of aftercare that is similar to parole supervision for adult offenders. Juvenile offenders who violate the conditions of aftercare may have their aftercare revoked, resulting in recommitment to a facility. Juveniles who are classified as youthful offenders and violate the conditions of aftercare may be subject to adult sanctions.

Government Response to Crime Is Founded in the Intergovernmental Structure of the United States

Under the American form of government, the Federal Government and each state has its own criminal justice system. All systems must respect the rights of individuals set forth in court interpretation of the U.S. Constitution and defined in case law.

State constitutions and laws define the criminal system within each state and delegate the authority and responsibility for criminal justice to various jurisdictions, officials, and institutions. State laws also define criminal behavior and groups of children or acts under jurisdiction of the juvenile courts. Municipalities and counties further define their criminal justice systems through local ordinances that proscribe the local agencies responsible for criminal justice processing that were not established by the state. Congress has also established a criminal justice system at the federal level to respond to federal crimes such as bank robbery, kidnaping, and transporting stolen goods across state lines.

Response to Crime Is Mainly a State and Local Function

Very few crimes are under exclusive federal jurisdiction. The responsibility to respond to most crimes rests with state and local governments. Police protection is primarily a function of cities and towns. Corrections is primarily a function of state governments. Most justice personnel are employed at the local level.

Discretion Is Exercised Throughout the Criminal Justice System

Discretion is "an authority conferred by law to act in certain conditions or situations in accordance with an official's or an official agency's own considered judgement and conscience."[1] Discretion is exercised throughout the government. It is a part of decisionmaking in all government systems from mental health to education to criminal justice. The limits of discretion vary from jurisdiction to jurisdiction.

Concerning crime and justice, legislative bodies have recognized that they cannot anticipate the range of circumstances or local mores surrounding each crime, or enact laws that clearly encompass all conduct that is criminal and all that is not.[2] Therefore, persons charged with the day-to-day response to crime are expected to exercise judgment within limits set by law. They must decide:

- ❑ Whether to take action.
- ❑ Where the situation fits in the scheme of law, rules, and precedent.
- ❑ Which official response is appropriate.[3]

Who Exercises Discretion?

Table 3 lists the various law enforcement agencies and their roles in the criminal justice system. To ensure that discretion is exercised responsibly, government authority is often delegated to professionals. Professionalism requires a minimum level of training and orientation, which guides officials in making decisions. Professionalism in policing is largely due to the desire to ensure the proper exercise of police discretion.

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1. Pound, Roscoe, 1960, "Discretion, Dispensation and Mitigation: The Problem of the Individual Special Case," *New York University Law Review* 35: 925–926.

2. LaFave, Wayne R., 1994, *Arrest: The Decision to Take a Suspect Into Custody*, Boston, MA: Little, Brown & Co.: 63–184.

3. Mark Moore to James Vorenberg, 1977, "Some Abstract Notes on the Issue of Discretion," Memorandum, June 21.

Table 3 The Roles of Criminal Justice Officials

These criminal justice officials	Must often decide whether or how to
Police	Enforce specific laws. Investigate specific crimes. Search people, vicinities, buildings. Arrest or detain people.
Prosecutors	File charges or petitions for adjudication. Seek indictments. Drop cases. Reduce charges.
Judges or magistrates	Set bail or conditions for release. Accept pleas. Determine delinquency. Dismiss charges. Impose sentences. Revoke probation.
Correctional officials	Assign to type of correctional facility. Award privileges. Punish for disciplinary infractions.
Parole authorities	Determine date and conditions of parole. Revoke parole.

The limits of discretion vary from state to state and locality to locality. For example, some State judges have wide discretion in the type of sentence they may impose. In recent years, some states have sought to limit a judge's discretion in sentencing by passing mandatory sentencing laws that require prison sentences for certain offenses.

National Assessment of State Court Automation

This section presents a state-by-state assessment of court automation as of early 1998. It was prepared by National Center for State Courts (NCSC) staff and is based on material they collected and telephone contacts with state court personnel.[1] Each state's profile covers the status of automation from the state's highest court down to courts of limited jurisdiction, such as traffic courts. Given the diversity of state court systems, however, uniformity in content was not possible. Table 4 at the end of this appendix follows the state profiles and provides a chart that illustrates each state's appellate, general jurisdiction, and limited jurisdiction court automation status, including:

- ❏ The agency primarily responsible for automation in each court.
- ❏ An indication of the existence of a uniform case management system for most courts at the particular court level.
- ❏ An indication as to who developed the court's software.
- ❏ An indication of who is responsible for maintaining the software.
- ❏ The platform in use.

Alabama. Court automation is the responsibility of the state judicial branch in the appellate, circuit, and district courts. The circuit and district courts use a uniform, mainframe-based case management system developed inhouse. The appellate courts operate a system, developed inhouse, on a local area network (LAN). The probate and municipal courts depend on local government units for automation support.

Alaska. The state judicial branch is responsible for automation of all the courts. The trial courts (superior and district) use uniform case management system software supplied by Aquidneck Management Associates (AMA), which runs in a UNIX-based client/server environment. The software is maintained by AMA and court staff.

Arizona. Appellate courts currently operate with software, developed inhouse, that runs on Digital ALPHA minicomputers. Arizona is using UNIX software from Progressive Solutions Inc. (PSI) in 13 counties. The state judicial branch and local government currently share responsibility for automation of the superior, tax, justice of the peace, and municipal courts. Trial courts are migrating to client/server software supplied by

1. Every attempt was made by project staff to verify the accuracy of these descriptions, but contact was not established in every instance. For further information, contact the specific state administrative office of the courts.

PSI. Arizona courts are using or planning for kiosk, imaging, and electronic filing technologies.

Arkansas. Local government is responsible for the automation of the trial courts. No uniform applications are in place. Appellate courts use software supplied by Office Automation Consultants, which runs on an IBM AS/400, but is being ported to a Microsoft Windows NT environment.

California. Appellate courts use a case management software package supplied by Relational Semantics. They share responsibility for maintenance of the UNIX-based application. Automation in the trial courts is the responsibility of local government. No statewide software packages are in use. Many superior and municipal courts have extensive and innovative applications of technology and are among the nation's leaders in court automation.

Colorado. All courts, with the exception of municipal courts, rely on the state judicial branch for automation. These courts are part of a statewide-integrated system for case management, accounting, and probation that was developed inhouse. The system, the Integrated Colorado On-line Network (ICON), runs on an IBM AS/400 Model 530–2162 platform. ICON is backed-up real-time to an AS/400 Model 510 located off site, and it feeds directly into the criminal justice information system (CJIS) through an RS/6000 interface.

Connecticut. Appellate courts maintain a case management system developed by a local vendor that uses the Oracle relational database. Superior court automation is the responsibility of the state judicial branch. Two applications exist: The civil system operates on an IBM mainframe, and the criminal system uses a Digital VAX operated by the Motor Vehicles Department. A strategic plan is in place to create a new statewide system that focuses on civil case management. Imaging technology is being introduced for citations issued for infractions. Probate court automation is the responsibility of local government.

Delaware. The Supreme Court of Delaware and Court of Chancery are not automated. The superior court, family court, court of common pleas, and justice of the peace court rely on locally developed software running on an IBM mainframe operated by the executive branch. The criminal case management application is part of a statewide-integrated criminal justice information system, but integration with civil and financial information is weak. The municipal court in Wilmington has recently merged with the court of common pleas and the justice of the peace court. The alderman's court is locally funded.

District of Columbia. Two primary platforms are used in the Superior Court of the District of Columbia—an IBM ES/9000 mainframe and a Windows NT-based local area network. The IBM mainframe supports five separate information systems, including criminal, family, child support, probation, and juvenile. The systems were developed in COBOL using

VSAM file structure. Recently, the criminal system was migrated to a high-performance database management system. The network consists of an Ethernet backbone, which supports 600 workstations. At the appellate level, a vendor-developed case management system runs on an AS/400 minicomputer platform.

Florida. Trial court automation is locally funded, but the courts are attempting to develop a standardized system through the association of court clerks. About 50 percent of the state's counties have committed to this project. Florida was one of the early adopters of Internet technology and has had successes in individual courts with imaging and integrated justice system applications.

Georgia. The appellate courts have a case management system, developed inhouse, which runs on a PC network. Trial courts are locally funded. The state has a contract with Choice Information Systems for a standardized system, and more than 50 courts have signed up to participate. The Georgia Court Clerks Association has developed a statewide land and title registry, which is uploaded from the systems of individual court clerks.

Hawaii. The state judicial branch is responsible for court system automation. The appellate system was developed by a local contractor and runs on a Wang VS minicomputer. Circuit, family, and district court automation run on an IBM mainframe and AS/400 minicomputer. These applications were developed by court staff. Plans for a state-of-the-art integrated system have just been initiated.

Idaho. Appellate courts use a case management system, developed inhouse, that runs on a minicomputer. The district court and its magistrate division use a uniform application developed by Justice Systems, Inc. This package runs on IBM AS/400 hardware. An upgraded version will use client/server technology and incorporate electronic filing.

Illinois. Appellate courts use a case management system developed by court staff in a client/server environment. Automation of the circuit courts is a local responsibility, and no uniform applications exist.

Indiana. Appellate courts use an IBM AS/400-based system developed by the supreme court's information services group. The Division of State Court Administration is responsible for approving formats and standards for trial court automation and recordkeeping. Preliminary design and a prototype called AIMS (Automated Information Management System) are available.

Iowa. A uniform case management system is used at the appellate and district court levels. The appellate system was developed commercially and is maintained by the judicial staff. The platform for both the appellate and district court systems is an RS/6000–AIX UNIX minicomputer. The district court system was developed by Bull Information Systems.

Kansas. Appellate courts use a case management system developed and maintained by their staff. It is Oracle-based and runs on a Sun Solaris, with Mac clients. Automation of the district and municipal courts is the responsibility of local government. Uniform applications exist in the district courts for accounting functions and statistical reporting.

Kentucky. The circuit and district courts use software developed by Choice Information Systems. This package, which is being updated inhouse to a Windows-based system, runs on personal computer networks at the local level and on a mainframe-based system at the state level. The administrative office of the courts has joined forces with the justice cabinet to develop a unified criminal justice information system. The design of this project is currently under way. Kentucky courts pioneered the use of imaging technology.

Louisiana. Each appellate court is designing and developing its own case management systems using client/server technologies. Common data elements from some courts will be electronically transferred to the Supreme Court of Louisiana for certain applications. The district, city, mayors, juvenile, family, and justice of the peace courts are locally funded and do not share common software applications.

Maine. The Supreme Judicial Court of Maine has a PC-based case management system that was developed inhouse. The superior court is state-funded, but no statewide application exists. Three courts share a system, developed inhouse and built in a UNIX/Oracle environment. The district court has a statewide, minicomputer-based system developed inhouse. The administrative and probate courts do not have uniform case management applications.

Maryland. The circuit court uses a mixture of case management systems. The administrative office supplies a system for smaller counties, and Montgomery and Prince George's Counties have developed their own systems inhouse. The state system was originally developed on IBM AS/400 minicomputers but is being replaced by a UNIX client/server package from Aquidneck Management Associates. Imaging is in place for land records. An electronic filing pilot project is being conducted in Prince George's County. District courts have a mainframe-based system developed by judicial branch staff. The orphan's court is locally funded, and no uniform statewide application is in place.

Massachusetts. Appellate courts use the Relational Semantics minicomputer-based case management system. Trial court departments and superior, district, probate/family, juvenile, housing, Boston municipal, and land courts are state-funded, but uniform statewide automation is in the planning stages. Three superior court locations—Middlesex, Suffolk, and Worcester Counties—share a case management system developed by Relational Semantics that runs on a Bull Information Systems minicomputer.

Michigan. Forty-one computer systems serve Michigan courts. Approximately 60 percent of the trial courts use standard case management software developed and supported by the State Court Administrative Office. Other courts use systems developed inhouse or purchased from vendors. Michigan's appellate courts—the supreme court and the court of appeals—have a case management system that was developed inhouse. Court data standards have been developed and published, and the supreme court has formed a broad-based commission to design a statewide court automation system, including a network and identification of minimum system functions.

Minnesota. District courts share a uniform case management system developed by court staff. The application runs on a Bull Information Systems mainframe platform. The courts are also experimenting with data-warehousing technology.

Mississippi. No statewide case management system applications exist, but plans are being developed to create them. The state Administrative Office of the Courts has developed an automated statistical case-tracking system that will be distributed to counties in the near future. The courts may also use this program as a case management system.

Missouri. An appellate information system is being tested in St. Louis for statewide use. It was developed by SCT Corporation and runs in a Microsoft Windows NT/Oracle environment. A statewide trial court case management system is being developed. The current version uses SCT software in a UNIX environment. The case management application will be transferred by year 2000 to a Microsoft Windows NT/Oracle platform. Municipal court automation is a local court responsibility, and no uniform applications exist.

Montana. The supreme court uses a DOS-based, PC software package for case management support. This system was developed by court staff. The district court has a statewide uniform system that runs on a PC network. It was developed inhouse, and plans are to transfer it to the water, justice of the peace, municipal, and city courts. The next version of this software will be Microsoft Windows-based.

Nebraska. The supreme court and court of appeals use case management software developed by Pro Data Computer Services, which runs on an IBM AS/400. The state's trial court application, JUSTICE, is being installed in district and county courts across the state. The courts with the largest caseloads are being installed first. The three largest district court locations will continue with the software already in place. The workers' compensation court has its own case management system already in place.

Nevada. The supreme court uses a vendor-developed software package running on Oracle with a Microsoft Access front-end. Trial courts are responsible for developing their own applications. The state is currently developing standards for these systems.

New Hampshire. The supreme court is planning to acquire a Windows-based case management system soon. The superior, district, and probate courts use Choice Information System's DOS-based SUSTAIN CMS for case management. The state judicial branch is reviewing Windows-based case management systems from various vendors. The state judicial branch is also building a wide area network to connect all courts for information sharing.

New Jersey. All courts use state-developed standard case management software that runs on an IBM mainframe. Trial courts use personal computer local and wide area networks to access this system. The state is testing imaging, electronic-filing, data-warehousing, and client/server applications for the trial courts. Parking authorities use hand-held computers with radio-frequency online access to the New Jersey statewide municipal court system. Jury processing and tax-recordkeeping systems are in operation using client/server technology.

New Mexico. Appellate courts are planning to acquire case management software that incorporates imaging technology. The district and magistrate courts use a case management system developed by Progressive Management Solutions (PSI). The PSI software runs on an RS/6000 server, with PC clients. New Mexico is experimenting with electronic filing, in conjunction with the District Court of the United States for the District of New Mexico. The system at the Metropolitan Court in Bernalillo was developed inhouse. Responsibility for municipal and probate court automation rests with local government, and no uniform applications exist.

New York. Each of the four appellate courts has court case management software in use; both are mainframe- and PC-based. Uniform systems for the supreme court, county court, court of claims, surrogates court, family court, district court, city court, New York City Civil Court, New York City Criminal Court, and family court (outside New York City) have been developed by judicial branch staff. Most run on mainframe computers; some also use personal computers. The surrogates court and family court (outside New York City) systems are PC-based. Town and village justice courts are a local responsibility.

North Carolina. North Carolina has uniform case management system applications in both superior and district courts. Applications include criminal, civil, infractions, financial management, and child support enforcement. These systems were developed inhouse in a mainframe environment. A district attorney and public defender application was developed on a client/server platform. Technology initiatives include a statewide warrant repository and a statewide juvenile information system.

North Dakota. The Supreme Court of North Dakota runs software that was developed inhouse and that uses client/server and PC platforms. The district court uses and maintains software acquired from another state.

Ohio. Trial courts are locally funded. No uniform statewide applications exist; however, more than 90 percent of the courts are automated through a group of private-sector vendors that have been awarded contracts through local competitive bids. The Administrative Office of the Courts provides technology-consulting services to the trial courts. Ten of the twelve appellate courts are automated. Five of these courts use a system developed inhouse called Oasis, which runs on a PC / Novell network using a Progress database. This system is being upgraded.

Oklahoma. Appellate courts use mainframe- and minicomputer-based software to support their work. The state has developed a uniform statewide application for the district court; it runs on a mainframe. Local courts are required to purchase their own equipment to connect with the system. No uniform case management technology is in use in the state-funded workers compensation court and the court of tax review. The municipal courts are locally funded, and no standardized automation exists.

Oregon. Appellate, circuit, and tax courts share case management applications developed by the Administrative Office of the Courts (AOC) that run on a network of 18 IBM AS / 400 minicomputers. This system is being redeveloped as a client / server application. Lotus Notes is being installed as a statewide messaging system for all court staff, and an electronic data interchange project for transferring criminal case data over the Internet has been completed. Data warehousing is being implemented in the AOC. Oregon is experimenting with digital recording systems in two circuit courts. County, justice, and municipal courts are responsible for their own automation.

Pennsylvania. The three levels of appellate courts have recently upgraded their desktop applications. A new uniform system is being developed by COMSYS Information Technology Services. County government is responsible for automation of the court of common pleas. A conceptual design for a uniform system is in process. Comprehensive case management, tracking, and information exchange with other courts is handled through a network of 31 AS / 400 minicomputers. This network is migrating toward integration with a Justice Network (JNET) involving nine other executive branch agencies. The Philadelphia municipal court has its own software, developed inhouse, which runs on an IBM ES9000. The Philadelphia traffic court runs on a system supplied through contract with Lockheed Martin. The Pittsburgh city magistrates' court is locally funded.

Rhode Island. The state judicial branch staff developed and maintains case management systems at the supreme court, superior court, district court, and family court levels. The current systems run on a Wang minicomputer platform. The acquisition process for a new case management system for the administrative adjudication court has been completed, and the system is being installed. The probate and municipal courts are responsible for automation at the local level.

South Carolina. An internal information resources group developed and maintains a Windows-based case management system in the appellate courts. Circuit courts have roll-up capability for criminal history decisions to a statewide data warehouse. The state judicial branch is planning to automate the case management systems in the circuit and family courts. No uniform case management systems exist in the magistrate, probate, or municipal courts.

South Dakota. State judicial branch staff developed and maintains a Register of Actions system on a PC LAN in the appellate courts. At the circuit court level, the criminal docket in the criminal justice information system application interfaces with law enforcement. An accounting/financial module was developed in 1993. A committee to study technology was formed in 1999.

Tennessee. Appellate courts have a case management system, Judicial Automated Management Systems (JAMS), developed by Government Systems. The software runs on an AS/400 platform. This system is being replaced with software developed and written by Nichols Research. The new software is a client/server system written in Delphi, with Oracle as the back-end database. The state judicial branch is developing and testing a new case management system. This system, being developed by Justice Systems, is planned for deployment to the circuit, chancery, probate, criminal, and general sessions courts. The software is being written in PowerBuilder with Oracle as the back-end database. Both systems will run on Novell NetWare-based local area networks, and the client will run under Windows 95. Chattanooga, Knoxville, Memphis, and Nashville have local responsibility for automation.

Texas. The Office of Court Administration developed and maintains a DOS-based generic case management application in the appellate and trial courts, with the exception of the constitutional county courts, which are responsible for automation at the local level. A newly formed Judicial Committee on Automation will prepare future automation plans for Texas. Electronic filing is being the discussed at the appellate level.

Utah. The state judicial branch developed and maintains uniform case management applications in a client/server environment at the appellate, district, and circuit court levels. The juvenile court is in a mainframe environment and plans to convert to a new platform. Justice courts have local-level responsibility for automation. Current development in the state judicial branch includes electronic filing and data warehousing.

Vermont. A uniform case management system is used at the superior, district, family, and environmental courts, and at the judicial bureau, which has statewide jurisdiction for traffic complaints and civil municipality ordinances. The system was developed by Relational Semantics and operates in a UNIX environment. State judicial staff developed the supreme court's

system, which also runs in a UNIX environment. Probate courts are responsible for automation at a local level. The state judicial branch is developing future automation plans.

Virginia. State judicial branch staff has developed and maintains uniform case management and financial systems in all levels of the courts, which includes the appellate, circuit, and district courts. Future plans for the circuit courts include imaging for record indexing, Internet access to court records, and electronic filing.

Washington. The Washington state court automated system is known as the Judicial Information System (JIS). JIS supports all jurisdictions: appellate, superior, and limited jurisdiction courts. It is used in all 39 counties and 305 court locations. Among the services provided are electronic docketing, case accounting, case tracking, notice generation, issue tracking, criminal warrants, and interagency information exchange (Department of Licensing, Department of Corrections, Washington State Patrol, and local government law enforcement agencies). There are currently more than 12,000 users. The system processes more than 800,000 online transactions per day.

West Virginia. The West Virginia judicial branch is overseeing a Computer Data Systems implementation of unified case management applications at all court levels under its jurisdiction. RISC-based IBM AS/400s are the platforms in the larger counties, while PCs are used in the smaller counties. A networking backbone is being developed statewide.

Wisconsin. State judicial branch staff developed and maintains case management systems at the appellate and circuit court levels. These systems are in a client/server environment and written in "C" code with a Standard Query Language server. Individual municipal courts are responsible for their own automation endeavors. The court system's Web site was completed in March 1998.

Wyoming. County courts and the justices of the peace courts use a case management application on a PC network, which was developed by Eagle. The system is currently maintained by inhouse staff. At the district court level, one court is using a program developed by Eagle; another court is making the transition to a system developed by Systems and Computer Technology Corp. The state judicial branch is in the process of developing new case management capabilities in the county courts and the justices of the peace courts. No automated case management system exists at the supreme court and the smaller municipal courts.

Table 4 National Assessment of Statewide Automation[1]

State	Appellate					General Jurisdiction					Limited Jurisdiction				
Question	R	CM	D	M	Platform	R	CM	D	M	Platform	R	CM	D	M	Platform
Alabama	S	Y	S	S	LAN	AO	Y	I	I	MAIN	AO	Y	I	I	MAIN
Alaska	S	U	U	U	U	S	Y	V	B	C/S	S	Y	V	B	C/S
Arizona	S	Y	S	I	VAX	M	Y	V	B	C/S	S	Y	V	B	C/S
Arkansas	S	Y	V	V	AS/400	L	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
California	S	Y	V	B	UNIX	L	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
Colorado	S	Y	S	S	AS/400	S	Y	I	I	AS/40 0	L	N	N/A	N/A	N/A
Connecticut	S	Y	V	V	ORACLE	S	Y	S	S	MAIN	L	N	N/A	N/A	N/A
Delaware	S	N	N/A	N/A	N/A	S	Y	S	S	MAIN	S	Y	S	S	MAIN
District of Columbia	L	Y	V	V	AS/400	L	Y	I	I	MAIN	N/A	N/A	N/A	N/A	N/A
Florida	S	Y	I	S	UNIX	L	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
Georgia	S	Y	I	I	PC	M	P	N/A	N/A	N/A	L	N	N/A	N/A	N/A
Hawaii	S	Y	V	S	WANG	S	Y	S	S	MAIN	S	Y	S	S	MAIN
Idaho	S	Y	S	S	MINI	S	Y	V	V	MINI	S	Y	V	V	MINI
Illinois	S	Y	S	S	C/S	M	N	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Indiana	S	Y	I	I	AS/400	S	N	N/A	N/A	N/A	S	N	N/A	N/A	N/A
Iowa	S	Y	I	I	RS/6000	S	Y	V	I	MINI	N/A	N/A	N/A	N/A	N/A
Kansas	S	Y	I	I	ORACLE	M	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
Kentucky	S	U	U	U	U	S	Y	V	I	WINDOWS	S	Y	V	V	WINDOWS
Louisiana	S	Y	I	I	C/S	L	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
Maine	S	Y	I	I	PC	S	N	N/A	N/A	N/A	S	Y	S	S	MINI
Maryland	S	N	N/A	N/A	N/A	M	Y	B	B	C/S	S	Y	S	S	MAIN
Massachusetts	S	Y	V	V	MID	S	Y	V	V	MINI	S	N	N/A	N/A	N/A
Michigan	S	Y	I	I	U	AO	P	I	I	U	L	P	I	I	U
Minnesota	S	Y	S	S	MAIN	S	Y	S	S	MAIN	N/A	N/A	N/A	N/A	N/A
Mississippi	S	Y	I	I	WINDOWS	L	N	N/A	N/A	N/A	L	P	N/A	N/A	N/A
Missouri	S	P	V	V	SCT	S	P	V	V	ORACLE	L	P	N/A	N/A	N/A
Montana	S	Y	I	I	PC	SO	Y	SO	SO	PC	L	Y	I	I	DOS
Nebraska	SC	P	V	I	AS/400	M	P	N/A	N/A	N/A	S	P	N/A	N/A	N/A
Nevada	S	P	V	V	ORACLE	L	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
New Hampshire	S	P	V	V	WINDOWS	S	Y	V	V	PC	S	Y	V	V	PC
New Jersey	S	Y	I	I	MAIN	S	Y	S	S	MAIN	S	Y	S	S	C/S
New Mexico	S	P	N/A	N/A	N/A	S	Y	V	V	C/S	S	Y	V	V	C/S
New York	S	Y	I	I	MAIN	S	Y	S	S	MAIN	S	Y	S	S	MAIN
North Carolina	S	U	U	U	U	S	Y	S	S	MAIN	S	Y	S	S	MAIN
North Dakota	SC	Y	V	B	AS/400	S	Y	V	S	AS/400	N/A	N/A	N/A	N/A	N/A
Ohio	S	P	I	I	PC	L	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A
Oklahoma	S	Y	S	S	MAIN	M	Y	S	S	MAIN	L	N	N/A	N/A	N/A
Oregon	S	Y	I	I	AS/400	S	Y	S	S	MINI	L	N	N/A	N/A	N/A
Pennsylvania	L	P	V	V	U	L	P	N/A	N/A	N/A	S	Y	V	S	AS/400
Rhode Island	S	Y	S	S	WANG	S	Y	S	S	WANG	L	N	N/A	N/A	N/A
South Carolina	S	Y	I	I	WINDOWS	S	P	N/A	N/A	N/A	L	N	N/A	N/A	N/A
South Dakota	S	P	I	I	LAN	S	Y	I	I	MAIN	N/A	N/A	N/A	N/A	N/A
Tennessee	AO	Y	V	V	AS/400	S	P	V	V	C/S	S	P	V	V	C/S
Texas	AO	Y	AO	AO	DOS	L	N	V	V	DOS	L	N	V	V	DOS
Utah	S	Y	I	I	C/S	S	Y	S	S	C/S	S	Y	S	S	C/S
Vermont	S	Y	S	S	UNIX	S	Y	V	V	UNIX	L	N	N/A	N/A	N/A
Virginia	S	Y	I	I	MAIN	S	Y	S	S	MAIN	S	Y	S	S	MAIN
Washington	S	Y	I	I	MAIN	M	Y	S	S	MAIN	M	Y	S	S	MAIN
West Virginia	S	P	V	V	AS/400	AO	N	N/A	N/A	N/A	S	P	V	V	MINI
Wisconsin	S	Y	S	S	C/S	L	Y	S	S	C/S	L	N	N/A	N/A	N/A
Wyoming	S	N	N/A	N/A	N/A	L	N	N/A	N/A	N/A	SC	N	N/A	N/A	N/A

1. Complete questions and a guide to abbreviations are provided at the end of the table.

Table 4 National Assessment of Statewide Automation (continued)

Question 1	R	Who is primarily responsible for automation in this court?			
			Appellate	General Jurisdiction	Limited Jurisdiction
	S	State judicial branch	45	27	21
	AO	Admin. office of the courts	2	3	1
	SC	Supreme court	2	0	1
	L	Local	2	12	21
	M	Mixed—state/local	0	8	1
	N/A	Not applicable	0	0	6
	SO	State office	0	1	0
		Total	51	51	51
Question 2	**CM**	**Is there a uniform case management system for most courts at this level?**			
	Y	Yes	36	30	19
	N	No	3	14	20
	U	Unknown	3	0	0
	N/A	Not applicable	0	0	6
	P	Partial/planning	9	7	6
		Total	51	51	51
Question 3	**D**	**Who developed the software?**			
	I	Inhouse	19	5	3
	S	State judicial branch	10	14	10
	AO	Admin. office of the court	1	0	0
	V	Vendor	14	13	10
	B	Vendor/inhouse	0	1	0
	SO	State office	0	1	0
	U	Unknown	3	0	0
	N/A	Not applicable	4	17	28
		Total	51	51	51
Question 4	**M**	**Who is responsible for maintaining the software?**			
	I	Inhouse	20	7	3
	S	State judicial branch	11	15	11
	AO	Admin. office of the court	1	0	0
	V	Vendor	10	8	7
	U	Unknown	3	0	0
	N/A	Not applicable	4	17	28
	SO	State office	0	1	0
	B	Inhouse/vendor	2	3	2
		Total	51	51	51

Brief Survey To Identify State and Local Operational Integrated Court Systems

INTEGRATED JUSTICE SYSTEM SURVEY 12/17/97

To all state court administrators and state and local MIS directors:

SEARCH and the National Center for State Courts are conducting the Court Information Systems Technical Assistance Project, a project that assists courts Nationwide with the automation and integration of information systems. We are interested in identifying operational integrated court systems at the state and local court system levels.

Integrated systems are defined as either (1) a system comprised of relatively separate subsystems, each designed primarily to meet the objectives of a single agency and joined together to meet shared objectives or (2) a single design concept using one computer language and set of development tools incorporating a shared database.

MIS Directors: Please take a few minutes to answer the following questions and return to Karen Gottlieb no later than December 31, 1997.

Fax your survey to:

Karen Gottlieb, National Center for State Courts, **303–296–9007**

State: _____ Contact: _____ Position: _____

Address: _____ Email Address: _____

Phone: _____ Fax: _____

1. Is there an operational integrated justice system that combines court case management with any other criminal justice functions in your jurisdiction at the state, county or other governmental unit level?

If Yes, whom do we contact to find out more about it? (Name and phone number)

2. Is an integrated justice system that combines court case management with any other criminal justice functions being developed or in the planning process in your jurisdiction at the state, county or other governmental unit?

If Yes, whom do we contact to find out more about it? (Name and phone number)

Detailed Survey of State and Local Agencies With Integrated Justice Information Systems

INTEGRATED JUSTICE INFORMATION SYSTEM SURVEY

State: _____ Contact: _____ Position: _____

Address: _____ Email Address: _____

Phone: _____ Fax: _____

Governmental Level of System: (State, County, Other_____)

DEFINITION/SCOPE

1. In terms of your system, how would you define integration?

2. Describe your system.
   1. Geographical scope (e.g., county, regional)
   2. Jurisdictional scope (e.g., criminal, civil, juvenile, etc.)

   Organizational scope:

   What agencies (including public) are involved in the system?

   a. municipal courts
   b. district courts
   c. juvenile courts
   d. appellate courts
   e. Federal justice agencies
   f. prosecutors
   g. public defenders
   h. private attorneys
   i. corrections
   j. law enforcement
   k. social services

l. treatment centers

m. motor vehicle department

n. the public

o. probation

p. commercial public information resellers

- Which agencies communicate directly with one another? For what general purposes / functions (what does each agency contribute; what does each agency get out of the system)?

- How is information shared (e.g., inquiry access only, batch data transfer, online data transfer, shared database, document transfer, or a combination thereof)?

GENERAL SYSTEM QUESTIONS

3. In what year did / will your integrated system become fully operational?

4. How long did / will it take to go from initial planning stages to a fully operational system? Describe the process.

5. What was the approximate cost of system implementation?

6. How was the project funded?

POLICY STRUCTURE

7. Is there a governing body (committee) that has the authority and responsibility for coordinating the integrated justice information system (IJIS)?

8. What is the authority for that committee (statutory, appointment, etc.)?

9. What powers does the committee have (advisory, policymaking, etc.)?

10. Who makes up that committee?

11. How are decisions made regarding: system design, construction, maintenance, implementation, and operation?

12. Who is responsible for general system management, software maintenance, and so on?

INFRASTRUCTURE

13. Are there data standards for sharing information (e.g., common definitions, common code structures, common formats, common edits)?

    Do you have a data dictionary? If yes, may we get a copy?

14. Are there functional standards in place (these are standards related to the way the system performs—how to avoid redundant data entry, how to track charges and dispositions, how to handle payments of fines, etc.)?

    If yes, describe. May we get a copy?

15. Are there security standards in place?

    If yes, describe. May we get a copy?

16. Does the Internet play a role in your system?

    If yes, describe, along with the underlying technology used for sharing of data on the Internet (data warehousing, EDI, online procurement, etc.).

17. What formerly paper processes has your system eliminated?

EVALUATION

18. What were your project objectives?

19. To what extent were they achieved?

20. Knowing what you know now, what, if anything, would you do differently?

21. What were the principal obstacles to overcome in implementing your integrated system?

22. What strategies would you recommend?

23. Do you have real cost-benefit data (not estimates, but evaluation data collected after implementation of the system)?

    If yes, please describe and provide copy of the data.

24. What type of assistance would be most useful to you in continuing development of your system (security, money, strategic planning, etc.)?

25. Is there anything else that you would like to add?

Results of the Nationwide Integrated Justice Survey

Introduction

The Court Information Systems Technical Assistance Project sought to identify the existence of operational integrated court systems in state and county courts.[1] National Center for State Courts (NCSC) staff sent a short, two-question survey in December 1997 to a mailing list of more than 150 possible respondents in 50 states and the District of Columbia (see appendix D). The mailing list, maintained by NCSC, included all state court administrators and selected managers of information services in state and local courts. The survey requested information on operational integrated justice information systems (IJISs) that combined court case management with any other criminal justice functions in the respondent's state, county, or other governmental unit. The survey also asked if such a system was being developed or planned.

Thirty-three surveys from twenty-five states were returned. Twenty-two respondents reported the use of an operational IJIS, eight responding agencies were considering or planning an IJIS, and three neither had nor were planning an IJIS. The 22 affirmative respondents and an additional 11 possibilities that expressed interest in IJIS were contacted by telephone to participate in an indepth integrated justice survey (see appendix E). Indepth surveys were completed covering 16 county IJISs in 9 states and 10 statewide IJISs.[2] An attempt was also made to contact by telephone the information services managers who did not return the short, two-question survey. In all, NCSC staff collected information on the IJIS status in 34 states.

The Status of Integrated Justice in the United States

The following analysis relates to the 9 statewide systems and 16 local systems that were surveyed.[3] An overlap of statewide and county-level systems was reported in Michigan, Missouri, and Nebraska. Of the 34 states that participated in the survey, 9 states reported no statewide or county-level operational IJISs, but several were planning to implement such a system.

Definition of an Integrated Justice System

Survey respondents were asked to define integration in terms of their systems. Six of the nine statewide IJIS respondents defined integration as the

1. For a summary of survey results, see section on court automation and integration in chapter 2, The Courts.

2. An indepth interview was conducted with a respondent from Rhode Island, but it was decided not to include Rhode Island because its planned IJIS had not been implemented.

3. Appendix G lists counties and states reporting that they were planning, developing, or operating integrated justice information systems. Due to time constraints, every jurisdiction was not surveyed. This report pertains solely to the jurisdictions that were surveyed during the course of this study.

ability to share information between agencies. One of the nine added that data are keyed only once. Two statewide IJIS respondents emphasized the multiple-systems aspect of IJIS. One mentioned that integration is multiple systems that act transparently. Another respondent defined integration as the ability to access multiple, different applications so seamlessly that the user does not know the difference, or in such a way that the user does not have to go through multiple application startups to access different pieces of information. One respondent defined integration as movement of data from originating agency computers directly into court computers for tracking, and then the return of the data from court computers to other agencies.

Respondents with countywide IJISs had similar responses. Seven defined integration as information sharing, often to reduce redundant data entry. One respondent added that integrated systems create one centralized view of criminal cases from start to finish and provide a comprehensive view of a defendant's cases, warrants, and programs. The same respondent stated that the system also provided identified information alerts to agencies based on activities from another agency. Two other respondents defined integration as using the same files, and one defined integration as using common tables designed to work together. Three mentioned that integration does not require redundant data entry and that the first agency enters the data. Two other respondents defined integration as a computer system that interacts with all agencies. One respondent emphasized that integration was the capture, maintenance, and use of information in a single system, processed by several applications, and used by multiple agencies to conduct related work. The same respondent stated that the goal of an integrated system is to ease communication.

Results of Indepth Interviews With Statewide Integrated Justice Information System Respondents

Indepth information on nine statewide operational IJISs was obtained for Connecticut, Delaware, Michigan, Missouri, Nebraska, New Hampshire, New Jersey, South Dakota, and Vermont. Each state's IJIS is described in this section. Other jurisdictions reporting that they are operating or planning integrated systems include Colorado, Maryland, Minnesota, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, and Wyoming. Many states, such as New York, have adopted specific statewide integrated applications to facilitate automated posting of court dispositions to state criminal history repositories. Although no state reported a fully operational IJIS, Delaware, New Jersey, and South Dakota are closer to achieving that goal than other states. They provide a clear picture of the successes and problems that occur in implementing integrated criminal justice systems.

Respondents

Connecticut. Connecticut began planning for its IJIS in the 1990s, with the adoption of the Criminal Justice Records Improvement Plan in 1993. The state expects its system, an Offender-Based Tracking System (OBTS), to be fully operational in the year 2001. The jurisdictional scope is criminal; the system will include the capability to handle records of juveniles who are convicted as adults.

Delaware. Delaware's IJIS includes civil, juvenile, and criminal jurisdictions. The criminal IJIS became fully operational in 1996. The civil system is not yet fully operational. The Delaware statewide IJIS does not include municipal courts, but includes justices of the peace, courts of common pleas, and superior and family courts.

Michigan. The Michigan IJIS comprises 41 different computer systems. The Judicial Information Systems Advisory Commission (JISAC) is working on data and functional standards for implementation throughout Michigan. The project's main goal is to implement a statewide consolidated disposition reporting system by the year 2001. Only Phase I of the Michigan statewide IJIS is operational at the present time; this phase encompasses 11 circuits in the southwest region of the state.

Missouri. Missouri's statewide IJIS encompasses state appellate courts, and state trial, circuit, associate circuit, and, potentially, municipal courts. Its current jurisdictional scope is criminal, civil (including traffic and probate), and appellate. Traffic and ordinance violations will be integrated when the municipal courts are added to the system. A separate part of the project is examining the possibility of including juvenile data in the system. The state will achieve base functionality with attorney and public access available statewide by between mid-1999 and mid-2000. Full implementation with external agencies and all courts will occur 4 years later. Only one court is currently up and running, and two more are in the testing stage.

Nebraska. Nebraska is in the planning stages of an integrated system to include all types of cases. A 5-year strategic plan was completed in 1997. The implementation of the statewide IJIS began at that time. The system was not designed to be "all or nothing," and stand-alone projects are currently under way.

New Hampshire. The New Hampshire IJIS is not yet fully operational. Phase I, the Criminal History Record Improvement phase, was based on a state police audit conducted 4 years ago that recommended electronic data exchange. The agencies involved accepted the recommendation and began implementation. Phase I is expected to be fully operational in 1 to 2 years. The IJIS's jurisdictional scope is exclusively criminal.

New Jersey. New Jersey's statewide systems reside on a central mainframe in Trenton and can be accessed by 21 counties. Several separate statewide systems are in place for different jurisdictions, such as criminal, civil, and family courts, including juvenile court. The separate systems share some interfaces, but they are not fully integrated. New Jersey's first statewide court system was implemented in 1985, and it continues to evolve in stages. The probation component, which is still being implemented, is integrated in 5 of the state's 21 counties.

South Dakota. South Dakota has implemented a unified court system. All county court offices share the same software. The jurisdictional scope includes criminal and accounting. Criminal docketing was operational in 1989, the online accounting capabilities were operational in 1993, and the defendant demographic database was operational in 1997. A probation component is in development, with the first phase expected for statewide implementation by early 1999. The register of action and civil development was scheduled to begin operation in spring 1998.

Vermont. The Vermont IJIS is criminal in jurisdiction. Planning started 5 years ago, and the state developed a criminal justice data dictionary and worked to get all agencies on a common network about 3 years ago. The prosecutor's office has funding to develop its own system. In the past 6 months, a committee has been developing a plan for electronic disposition reporting. Significant parts of the IJIS are operational, although no date has been set for full implementation. A separate integration project involves juvenile courts.

Organizational Scope: An Overview

Respondents were asked to list all agencies involved in the IJIS effort in the state or county (see appendix H). At the state level, six of the nine states report that their limited jurisdiction, general jurisdiction, and juvenile courts are or would be included in the IJIS. Three states—Connecticut, Delaware, and Vermont—do not include limited jurisdiction courts. (Connecticut has only a state-level court system.) Six of the nine responding states include appellate courts in their IJIS. The three that did not include the appellate courts—Nebraska, South Dakota, and Vermont—have no plans to do so. Only Connecticut and New Jersey include federal agencies in their IJIS. New Jersey includes the Federal Bureau of Investigation (FBI) and the U.S. Customs Service. In Connecticut, federal agencies are integrated for domestic violence and protection orders with the National Crime Information Center (NCIC). Seven of the nine IJISs include the prosecutor, and Missouri and Vermont plan to do so in the future. Seven of the nine states reported that the public defender is or will be included in the IJIS. In Connecticut, the public defender has limited access. Michigan, which uses a court-appointed attorney rather than a public defender, does not include the court-appointed attorneys in the IJIS. Only New Jersey

includes private attorneys in its IJIS. Online access to the civil court system is available in New Jersey. Delaware and Missouri plan to include private attorneys. New Hampshire plans to eventually provide electronic filing and docket information on an external Web server.

Six of the nine respondents reported that corrections was included in the IJIS. The other three states are adding or planning to add corrections. All respondents reported that law enforcement was or would be included in the IJIS, but with variations. Michigan includes its state police; South Dakota includes its local law enforcement in the larger counties; Nebraska includes its local police departments, sheriff's offices, and the state patrol. Delaware, Michigan, Nebraska, New Jersey, and South Dakota reported that social services agencies are included in the IJIS. Connecticut and Missouri plan to include social services agencies in the future. Delaware integrates social services to a limited degree, for child support and drug treatment purposes. Nebraska has included the Office of Juvenile Services, which is the only social service agency in its system. South Dakota's Division of Social Services has query access to the criminal docket, and court access to social service records is being developed. The welfare and child support systems in New Jersey are included in the IJIS through the Department of Human Services.

Only Delaware reported that treatment centers are included in the IJIS, but Connecticut and Missouri may include treatment centers in the future. All states but one reported that the division of motor vehicles (DMV) was included in the IJIS. Missouri plans to include the DMV in the future. In New Jersey, the court informs DMV if a person misses a scheduled court appearance; DMV then revokes that person's drivers license. Courts have query access to the DMV files in South Dakota.

Public access to the IJIS is offered only in Delaware, Michigan, and New Jersey. Public access in Delaware is limited to walkup terminals, while New Jersey's public access consists of dumb terminals available at the courthouse. Two other states plan public access in the future. All respondents reported that probation is or will be part of their IJIS. However, Michigan includes district and juvenile courts only, leaving out circuit probation courts. New Jersey includes commercial public information resellers through tape dumps in its IJIS. None of the other responding states include commercial public information resellers in their statewide IJISs, but Delaware plans to do so in the future.

State-by-State Breakdown

Connecticut. All criminal justice agencies in the judicial and executive branches of government are able to communicate with one another, although the state's IJIS is not fully implemented and integrated at this time. The Connecticut IJIS is broad in scope. No distinction exists between general and limited jurisdiction courts. Public defenders, private attorneys,

and the public have access to information as authorized. The potential exists to interface with social services and treatment centers.

The Connecticut initiative to establish an OBTS will integrate information systems from criminal justice agencies to more effectively and efficiently track offenders. OBTS will:

- ❑ Contain, in one system, offender data including names and identifying data, criminal histories, court data, dispositions, restraining and protective orders, incarceration status, probation information, and parole status.
- ❑ Build upon and use state agency systems and data.
- ❑ Provide access to complete, timely, and accurate criminal history records.
- ❑ Generate uniform crime reports for FBI or state statistical or administrative purposes.
- ❑ Set the stage for future enhancements.

Delaware. Courts receive electronic filings, attorney updates, prisoner location data, and criminal history from criminal justice agencies. They disseminate calendar, docket, and scheduling information to criminal justice agencies.

Michigan. Courts have the capability to report disposition data electronically to the state repository, but not all courts are doing so. Michigan is developing a Consolidated Disposition Reporting System that will require courts to send disposition data only once. The state's goal is to have courts transmit information once to a Court Information Distribution Center (CIDC). The CIDC will then forward the information to state police and DMV, thereby eliminating the need to report information to each agency separately. Courts have to send disposition data to the state police and DMV in traffic-case misdemeanors. The Michigan State Police are conducting pilot projects with automated incident capture and ticket citation systems. Patrol officers can issue a ticket, print it in the patrol car, and transmit the data instantly to the court system. Michigan's future IJIS plans include an interface that will allow prosecutors to file charges directly with the court. A federal/state committee is also looking into electronic filing.

Missouri. Officials have not determined a method of communication regarding external agencies. Attorneys, prosecutors, and public defenders should have Internet access in the next several years. Data exchange among traffic enforcement, highway patrol, sheriff's departments, and corrections may not be implemented until the year 2002 or 2003. State officials believe that they need to establish a data warehouse to accommodate these functions. First, however, they need a case management structure in place. Officials must also examine the issue of electronic filing. Plans call for the State Department of Corrections to gather probation information on

defendants. Under this system, highway patrol officers will also be able to access criminal history in the field with hand-held readers.

Nebraska. Officials plan to establish a central repository that would allow every agency to share criminal histories, DMV records, juvenile information, and other data. The system plan is to generate a chain of events beginning with arrest and continuing through booking to the county attorney and to court actions. Improvements are planned to allow local agencies to share or transfer data.

New Hampshire. Primary IJIS integration occurs between the courts and law enforcement. Each court has a file server to accept and dispense information. Law enforcement links to the courts by sending them arrest data and receiving case disposition information in return.

New Jersey. Every single case, including each traffic offense, is updated on the statewide judicial system. This is accomplished through several different means. Law enforcement can access criminal and municipal court systems online to search for outstanding warrants. Depending on local technology, police officers can write parking tickets online. Officers are also able to enter arrest information online through an automated complaint system; this information is sent directly to the municipal courts. An information-tracking system used by county jails for arrests and bookings is integrated with a local criminal court scheduling system. This allows county jails to determine whether individuals who are booked have pending criminal matters elsewhere in the state. Prosecutors share the PROMIS/GAVEL database. The prosecutor's office enters the initial information, court orders are generated by the system, and the sheriff's office receives them electronically. The Department of Human Services (DHS) and probation interact via an automated child support enforcement system operated by DHS and accessed by probation departments via a wide area network. The child support enforcement system is housed in the executive branch database.

South Dakota. The defendant demographic, the criminal docketing, and the judicial accounting files in South Dakota courts are integrated with one another so that data are stored only once and are shared among the three systems. Only the Sioux Falls Police Department and the Minnehaha County Sheriff's Department (the largest police and sheriff agencies in the state) currently share data with the courts. Plans are under way to transfer data between the Rapid City Police Department and the Pennington County Sheriff's Office. Citation information from the police department and from the sheriff's office is uploaded to the state's criminal docketing database. Sentencing information is downloaded to these two agencies to prevent the need to rekey data. At the state level, sentencing information is passed on to law enforcement and to related agencies such as DMV, the Division of Criminal Investigations, and the law enforcement systems of the Departments of Parks and Fish and Game. Judges and probation officers have query access to law enforcement files for presentence

investigations. Plans include integration with the State Highway Patrol as soon as funding is located. Discussions have also been held about including the Department of Corrections. The current probation system, which is in development, will be integrated with existing demographic, criminal docket, and judicial accounting files.

Vermont. Law enforcement agencies file electronically with prosecutors and can access court records for enforcement purposes. Prosecutors also file electronically and have access to all court records. Electronic filing occurs in the courts, and disposition reports are sent electronically to different criminal justice agencies. The Vermont Crime Information Center (VCIC), the state's criminal history repository, receives information from the courts electronically and has access to court records to reconcile data problems. Corrections receives sentencing information from the courts electronically and sends release data to the VCIC electronically.

Policy Structure

Eight of the nine responding states have a governing body with the authority and responsibility to coordinate the IJIS. (South Dakota's court technology committee was newly appointed at the time of the survey; its first meeting was scheduled for spring 1998.) The ninth state, New Hampshire, has no governing body; instead, it uses a cooperative approach between the courts, the state's attorneys, and the state police. Connecticut, Delaware, Nebraska, and New Jersey maintain a governing body—called the Criminal Justice Information Systems (CJIS) committee—in each state. Michigan's governing body is the Judicial Information Systems Advisory Commission (JISAC). Vermont has no formal body; the Criminal Record Improvement Task Force governs the IJIS.

Governing bodies in Michigan, Nebraska, New Jersey, South Dakota, and Vermont have advisory powers, while the Connecticut, Delaware, and Missouri bodies have policymaking authority.

The top priority of Missouri's committee is to develop an integrated court system. The committee's policymaking power may be an outgrowth of its statutory authority. The Missouri legislature approved a court automation fund and directed the Chief Justice of the state supreme court to name members to an oversight committee whose composition was prescribed by legislation. The committee manages the project and the expenditure of funds.

New Jersey's committee has been formed on an ad hoc basis; it has no authority to compel, but it does make critical decisions regarding allocation of funds, system architecture, and related issues. Nebraska's advisory committee was formed by operating instruction of the state's Crime Commission. It makes recommendations to the commission, governor, and legislature on funding, planning, and project implementation. Michigan's committee was created by the Michigan supreme court. South Dakota committee members are appointed.

The Missouri committee's strong ties to the state legislature are reflected in its composition. The committee includes two representatives each from the state senate and house, although most of its members are from the courts, primarily the appeals, circuit, and associate circuit courts. Also represented on the committee are state court administrators, data-processing telecommunication experts, and attorneys. The Michigan board contains four legislators: a Republican and a Democrat from the state's house and senate. The commission also has members from the judiciary, court administration, DMV, social service agencies, prosecution offices, and the state court administrative office, along with the state chief information officer from the governor's office. It invites agency leaders to participate.

Other responding states do not have legislative representatives on their committees. New Jersey's committee is made up of middle and senior management people from the executive and judicial branches of government. The South Dakota committee roster lists representatives from various user groups, court technical staff, and magistrates, judges, justices, court administrators, probation officers, and court clerks.

Nebraska's committee is the most encompassing, including a variety of representatives from state and local criminal justice, court and technology agencies, and law enforcement, court, legal, and government organizations.[4] Legislative fiscal planners also actively participate in Nebraska's IJIS planning process, but they do not vote.

In Vermont, the Criminal Record Improvement Task Force, required as a condition for receiving federal Byrne Grant funds,[5] comprises information services directors from the courts, corrections, the VCIC, law enforcement, and the state's attorney. Delaware's committee comprises one or two representatives from each of the state's criminal justice agencies, the heads of executive branch departments, and two representatives each from the judicial branch and law enforcement. In Connecticut, the committee includes representatives from all criminal justice agencies.

Decisions regarding IJIS design, construction, maintenance, implementation, and operation are made differently. In Missouri, a governing body subcommittee, which has been incorporated into the state Court

4. Nebraska's IJIS committee includes representatives from the Nebraska Crime Commission, State Patrol, State Court Administrator's Office, State Corrections Department, Juvenile Services, State Probation Department, Juvenile Probation, State Parole Board, Attorney General's Office, Nebraska Intergovernmental Data Communications Advisory Board, Police Officers Association, Police Chiefs Association, Sheriffs Association, Omaha and Lincoln Police Departments, County Attorneys Association, Criminal Defense Attorneys Association, Clerks of District Court, County Court Employee Association, League of Municipalities, Commission of Public Advocacy, and the State Domestic Violence Coalition.

5. Edward Byrne Memorial State and Local Law Enforcement Assistance Program funds for crime eradication programs are administered by the Bureau of Justice Assistance (BJA), U.S. Department of Justice (DOJ).

Administrator's Office, provides the main committee with "best choice" recommendations. The office is responsible for general system management and software maintenance for most Missouri courts, although metropolitan courts may take over that responsibility if they choose. IJIS decisions in Michigan are the product of a multiagency working group with the state Court Administrator's Office responsible for general system management. Nebraska also follows a committee approach for IJIS decisions; the final responsibility for a project goes to the agency taking ownership of the project.

In New Jersey, technical staff, such as the manager of information services, make decisions along with user groups. The information services department is responsible for general system management. In South Dakota, technical staff and user groups make the decisions. Responsibility for general system management belongs to the state court administrator's systems development office. Participating agencies make the decisions in Vermont and are responsible for system management. The same is true in Delaware, where each agency makes its own IJIS decisions, except for those that maintain systems with large interface components developed by the Delaware Justice Information System (DELJIS). In these cases, the DELJIS governing board makes decisions. In Connecticut, decisions are made pursuant to a system design agreed to by all agencies, which is then reviewed by the CJIS policy board. The driving force behind decisionmaking in New Hampshire is the state police, but all agencies make decisions regarding their specific data. The New Hampshire State Police are also responsible for maintaining the statewide network, and each participating agency is responsible for its own portion.

Integrated Justice Information System Infrastructure

A variety of data interchange methods are contemplated by the various statewide IJISs. Michigan officials hope that the system becomes an online, interactive resource at the local level. At the state level, the DMV uses batch data transfer to send information to its database once a week, and courts send tapes with dispositions to the DMV. Michigan has no current statewide plans for electronic filing, but several local trial courts are experimenting with pilot projects.

Missouri is considering a variety of technological tools ranging from kiosks to voice interactive telephone response systems to deliver information. It plans to implement electronic filing within 18 months. New Jersey is interested in testing electronic filing. South Dakota uses a combination of data interchange methods; local law enforcement uses batch transfers over the Internet, and state agencies use online data transfers with batch interfaces.

Connecticut uses inquiry access, batch data transfer, online data transfer, and shared databases, depending on the application. Delaware's criminal IJIS has physically separate databases that appear as a single database, and

the civil IJIS uses only batch data transfer at public terminals. New Hampshire uses batch data transfer and real-time online data transfer in its criminal IJIS. Vermont has not decided how it will share information, but the state will not use shared databases.

It appears that none of the statewide systems rely on one central database, although Missouri is planning to develop a data warehouse based on one database, located possibly in the state data center. Each Michigan agency will continue to use its own database; no central database will be established. In New Jersey, each system (criminal, civil, and family) is integrated on a shared database. Information from the separate databases populates two central databases. These two main computers (one judicial and one executive) speak to one another through a cross-domained network, and users in each branch can access data on the other branch's computer.

Missouri is the only respondent that uses the Internet to exchange data with electronic filing. It will soon have administrative court information on a Web site with password access. The underlying technology will be data-warehousing and Lotus Domino databases for information repositories. Delaware uses the Internet to access legal research. New Jersey uses the Internet only for electronic mail; it is planning to make its civil system available via a secure server on the Internet. Nebraska is also looking at allowing access through a more secure intranet. South Dakota is considering using the Internet to implement electronic filing. State government intranets in New Hampshire and Vermont are behind firewalls to the Internet; these states expect all business to occur behind the firewall.

Standards

Data Standards. Not all states have established data standards (for example, common definitions, code structures, formats, and edits) for sharing information. Connecticut, Delaware, Michigan, New Jersey, South Dakota, and Vermont have statewide data standards. Michigan's first phase was the formulation of a task force to define court data element standards for required reporting. All court systems in South Dakota are standardized with one another. Most state agencies have adopted the court's structure for tracking charges. Other codes, edits, and definitions are somewhat standardized, but a considerable amount of data coding remains agency-specific.

In Connecticut, the Department of Information Policy provides data standards for executive branch agencies, and Justice Information Services provides data standards for the courts. Connecticut, Delaware, New Jersey, South Dakota, and Vermont have data dictionaries. South Dakota's dictionary is an alphabetical listing of all data elements with codes and definitions explained. In Connecticut, the data dictionary is used only for the shared data elements, although it contains an inventory of all data elements.

Missouri, Nebraska, and New Hampshire do not have data standards in place. Missouri conducted a lengthy evaluation with the help of a consulting firm that identified interchange points that will be used when Missouri moves to data warehousing. Nebraska has circulated a request for proposals (RFP) to obtain assistance in developing data standards.

Performance standards. Not all states developed performance standards, although Michigan, Nebraska, and Vermont plan to put performance standards in place. New Hampshire does not have performance standards either, but it reports that the system design works to avoid redundant data entry. Delaware's system is also designed to avoid redundant data entry.

In Missouri, performance standards are included in a case management system that is undergoing testing. New Jersey has more than one set of performance standards because each court sets its own rules, procedures, and user procedures. Connecticut's performance standards were designed to prevent redundant data entry and to establish a single data-entry point.

Security standards. Connecticut, Delaware, Missouri, New Jersey, and South Dakota have security standards. In Connecticut, the security standards vary by agency. Delaware deals with security by maintaining separate databases. Missouri's security standards are defined by a state judicial records committee in the same fashion as standards related to paper records. As an ongoing activity, the committee will be responsible for distinguishing between public and private data using previously identified standards. New Jersey uses various mainframe software packages customized for its system. Individual user groups—such as court practice areas—control access and security. Each user in South Dakota is assigned a user password and a security officer determines which files a user can access, which functions can be accessed within those files, and the type of access. The security software requires that users reset passwords every 90 days.

Michigan, Nebraska, New Hampshire, and Vermont have not implemented security standards. Michigan and Nebraska are planning to develop them. Michigan's standards will correspond to federal security standards. For example, NCIC requires that the system be controlled by a criminal justice agency. Nebraska requested security standards in its communication network RFP. Vermont's Criminal Record Task Force will recommend security standards, but it is up to criminal justice agencies to decide whether to implement them.

Achievement of Project Objectives

IJIS objectives range from narrowly defined goals in Michigan, New Hampshire, New Jersey, South Dakota, and Vermont to more broadly defined objectives in Connecticut, Delaware, Missouri, and Nebraska. Michigan's objective is the simultaneous electronic submission of court dispositions to the DMV and state police rather than the transmission of

the dispositions to each agency separately. The project objective in New Hampshire is to improve the criminal history repository through electronic data exchange. The original objective of New Jersey's IJIS was to reduce all paperwork to a case file folder, but new objectives are established regularly. They include electronic filing, remote electronic access to court records, and increased Internet use.

Each South Dakota system had different project objectives. The criminal docketing system's objective is to eliminate duplicate data entry and improve interfaces between courts and law enforcement. The judicial accounting system's objective is to eliminate manual bookkeeping and to track all monies handled by the court system. The objective of the defendant demographic file is to tie all individual docket records for an individual to one unique, demographic name record that contains identifying and alias information about the defendant. Vermont's objective is access to current records.

Connecticut's project objectives are to provide accurate and timely information to the judiciary and to law enforcement at locations of need. Delaware's objective is efficient management of criminal and civil justice through improvement of timeliness in case processing and through control of case processing to avoid case loss. Nebraska's objective is easily defined: efficient access to data throughout the state. Missouri's project objectives are to (1) provide citizens with an integrated court system that improves access to courts, speeds the administration of justice by reducing backlogs, and results in smaller staff levels, and (2) improve clerical efficiency.

It is too early to determine whether Connecticut, Michigan, Missouri, Nebraska, New Hampshire, and Vermont have met their IJIS project objectives, but New Jersey and South Dakota believe their projects have met the objectives defined during project design. Delaware reports that it achieved most, but not all, of its project objectives. New Jersey finds that its original objective was achieved far beyond expectations, but that New Jersey users always want better systems. Evaluating specific objectives, such as Michigan's electronic disposition process, will be easier than assessing general objectives, such as Nebraska's goal of easy and efficient data access.

Another way to evaluate the achievement of IJIS project objectives is to measure the elimination of paper processes. In South Dakota, daily and month-end account balancing and reporting that previously took up to 2 weeks when performed manually have been automated by IJIS. South Dakota's system also generates indexes, notices, court calendars, bench warrants, and jail forms. Delaware reports that internal control sheets and data gathering for statistics are paper processes eliminated by IJIS. New Hampshire eliminated judicially issued warrants only, but other paper-dependent processes, such as disposition reporting, will be automated to such a degree that paper use will be significantly reduced.

Missouri is striving to use entirely electronic case files. The permanent storage medium is undefined at this time. Missouri is also planning to automate workflow processes with a system that generates summonses and warrants and that provides electronic service of process, fee collection and receipt, and electronic filing. In Michigan, court dispositions will be sent to the state repository electronically. Nebraska is seeking to reduce paper processes via a victim notification system and a protection order system, but the state is not expecting significant paper reduction because of the nature of protection orders. Vermont expects the paper processing of criminal disposition reporting, criminal and state's attorney filings, and corrections sentencing reports to be eliminated.

Implementation Cost Estimates

The states had difficulty estimating the cost of IJIS implementation. New Jersey mentioned that funding was a "never-ending story." The state currently spends $30 million a year on judicial branch operations, which includes Title IV–D child support money. Thirteen years ago, it spent $5 million a year on judicial branch operations. New Jersey's biggest expenditure is the cost of maintaining 10,000 court personnel. Connecticut estimates that the cost of its OBTS for the executive and judicial branch criminal justice agencies will reach $23.6 million for the period between 1997 and 2001. Additionally, federal funding is fostering projects supportive of, and integrated with, OBTS.

Missouri, which is implementing a 10-year IJIS project, initially estimated that full implementation, which includes 120 courts and 3,000 users, would cost the state $73 million. The estimate does not include staffing costs and expenditures for ongoing maintenance for applications and hardware. Nebraska estimates that the approximate cost of its IJIS implementation will be between $8 million and $9 million, a figure that does not include separate costs to implement IJIS in state courts in various local jurisdictions. Michigan initially budgeted $3.9 million for its disposition reporting system. That figure is expected to rise. In Delaware, IJIS cost the courts $2 million and criminal justice agencies $5 million. New Hampshire estimates that IJIS cost its courts $1.5 million, but it cannot estimate costs shared by other participating agencies. Vermont reports that the cost of phase I was $90,000. South Dakota did not have implementation costs available.

Integrated Justice Information System Funding Sources

Respondents reported that a variety of sources were used to pay for IJIS development and implementation, but all used some state funds. Municipal courts in New Jersey are funded entirely by state dollars generated by a $2 court automation surcharge on every traffic or parking ticket paid in the state. Primary funding for Missouri's system will come from court case assessments. State officials received legislative approval for a $7 court automation assessment at the time of disposition for every civil and criminal

case filed in the state. They also approached the legislature this year seeking general revenue funds to cover staffing and operational costs. Connecticut will pay most of its IJIS tab with state bond funds totaling $22.6 million. Delaware used a mix of federal and state funding, but most funding came from the state.

Federal grants also play a role in funding IJIS systems.[6] Nebraska uses Byrne set-aside money and Violence Against Women Act (VAWA) grants. It is attempting to obtain funding through the National Criminal History Improvement Program (NCHIP). New Jersey has been successful in obtaining federal grants. It received both Byrne and NCHIP federal grants that were applied primarily to superior courts in collaboration with law enforcement, VAWA money that has been applied to family court, and grant money from the Victims of Crime Act. Connecticut, New Hampshire, and Vermont also received Byrne Grant money, and Connecticut also receives NCHIP and State Identification Systems grant money. Connecticut has applied for funding from the National Sex Offender Registries–Assistance Program (NSOR–AP), which will enhance court and law enforcement handling of sex offender data. Michigan received Byrne and NCHIP grant money and used it to fund the state police portion of its consolidated disposition reporting system. Michigan funded the DMV portion of its IJIS with funds directed toward combating drunk driving. New Hampshire reported using Brady Grant money to fund its IJIS. The Missouri IJIS has received hardware grants for small courts (fewer than six staff members) and is looking for additional grant funding. IJIS activities in South Dakota were funded by a combination of staff time and federal and state monies.

None of the states had cost-benefit evaluation data for IJIS implementation. Two states mentioned that it would be impossible to evaluate because of the difficulty of putting a price on the increased quality of justice. Another state mentioned that a cost-benefit analysis is difficult because placing a value on access to information is impossible. Missouri plans to measure the cost benefit by determining whether the IJIS can handle more cases with the same number of employees.

Lessons Learned and Obstacles Overcome

Respondents were asked what they would do differently, if given the opportunity to reorganize their IJIS projects. Connecticut indicated it would continue in its direction of extensive planning. Missouri officials said that they would do nothing differently. Both states planned extensively and are satisfied with the results. Michigan believes it learned from other states' mistakes. Planners in Michigan made sure that all necessary players were involved in the planning process. South Dakota thought it might implement some of the larger projects in different phases. The judicial

6. The federal grants mentioned in this section are administered through various bureaus of DOJ.

accounting system, for example, took a long time to design, program, and implement. Phased implementation of this system would have allowed users to benefit from the system components sooner. New Hampshire would have worked for small successes early and tested individual elements so they would become operational as soon as possible without waiting for other parts of the system to come online. Nebraska mentioned that it would have guaranteed that adequate personnel and financial resources were available when its IJIS project began. New Jersey echoed Nebraska's suggestion and added that it would have budgeted more money to retain information technology professionals because of the difficulty in retaining qualified staff. The Delaware respondent said the state wished it had conducted a better "upfront" business analysis to determine what it wanted from its IJIS, which became an automated version of its current system without improvements. Delaware officials also emphasized the importance of a full-time administrative and technical staff.

Reported obstacles to IJIS implementation were similar across the states. Seven of the nine responding states identified funding as an obstacle. Missouri obtains funding from the state legislature, so funding was not a problem. In Michigan, court projects were funded at the local level, and courts compete with local criminal justice agencies for money. New Jersey indicated that funding was not its biggest obstacle, but more funds are necessary to accomplish all its goals. South Dakota thought systems implementation was slowed by limited programming resources.

Some states identified the "people" factor as a major obstacle. The Missouri respondent stated that many people are traditionally resistant to change and fear losing control of their data. The New Jersey respondent believed that, even though people generally worked well together on a state IJIS project, conflicts inevitably occurred. Nebraska dealt with potential turf battles by showing potential system participants the benefits of integration. Missouri indicated that problems arose when planners tried to design a system to account for both major metropolitan jurisdictions and rural ones. New Hampshire identified old technology as an obstacle to overcome in implementation. Problems in Vermont included the fact that state's attorneys are not part of the IJIS and that it was difficult getting agencies to enter data that comply with the standard formats specified in the state's dictionary.

Recommended Strategies

Respondents from three states mentioned that comprehensive strategic planning with a clear set of outcomes is necessary for successful IJIS projects. Three states emphasized the importance of working with legislatures, governors' offices, and other fiscal representatives from the beginning. One emphasized the importance of obtaining legislative approval and commitment to funding at the highest possible level. New Hampshire mentioned the importance of knowing who the players are, identifying

what they want, and determining the availability of good technical and operational staff. Missouri remarked on the role the Chief Justice played in motivating politicians and technical staff to support IJIS. The respondent from Michigan added that flexibility is necessary during project development to account for the unexpected, such as technological changes, and that the project focus should be on functionality, not structure. Connecticut identified the importance of ensuring participation by all criminal justice agencies and noted that patience is necessary while agencies learn about the requirements and benefits of integration. Delaware emphasized the importance of reengineering business systems and ensuring that a technological infrastructure can handle IJIS.

Results of Indepth Interviews With Countywide Integrated Justice Information System Respondents

Respondents and Their Organizational Scope

Representatives from 16 countywide IJISs in 9 states consented to indepth interviews, which are summarized in this section. The scope of their organizations differs from statewide IJISs in several respects (see appendix H). For example, countywide IJIS are less likely to include appellate courts but are more likely to include juvenile courts, private attorneys, and treatment centers.

Kern County, California. Kern County's IJIS jurisdiction is criminal. Juvenile courts were added to the system in mid-1998. Kern County's IJIS is far-reaching, including all courts (except for the appellate court) and criminal justice agencies. It was developed concurrently with similar IJISs in San Joaquin, Marin, Monterey, and San Mateo Counties in California.

Sacramento County, California. Sacramento County has an adult criminal integrated system that includes traffic and will soon include juvenile delinquency data. It has been in existence in its entirety since November 1988; however, pieces were in place as early as the 1970s. The IJIS consists of five modules (adult criminal justice, jail inmate management, court caseload management, probation, and municipal court caseload management). The Juvenile Automation System (JAS), implemented in 1998, facilitates a modest level of information sharing between the county's juvenile courts and other criminal justice agencies.

San Diego County, California. The San Diego County IJIS is in the early stages of implementation and will become fully operational between 1999 and 2001. Design planning began in 1993 with discussions between the courts and the criminal justice agencies. Development began in 1996. At the present time, the civil component of the IJIS is operational in one judicial district; the criminal component is in development, with the sheriff developing the booking

subsystem. The development of the district attorney module is currently on hold. Some of the IJIS subsystems cross county lines.

Ventura County, California. Ventura County maintains a coordinated county IJIS with criminal jurisdiction. The IJIS includes all county-level courts. The IJIS now in use was completed in 1989, and a new IJIS project began in 1996. Public access to the system is considerable. In addition to public-access terminals in the courthouse, kiosks in three shopping malls in the county provide court information. Sixty businesses, including credit bureaus, private investigators, and insurance companies, paid a one-time administrative fee of $200 to gain system access.

Dade County, Florida. Dade County maintains a CJIS, along with Civil and Traffic Information Systems, to serve the 11th Judicial Circuit and Dade County courts. The IJIS includes the juvenile delinquency and dependency caseload of the circuit court. It enables the courts, state's attorney, police, public defender, and corrections to keep track of defendants from the moment they are arrested and booked to the end of their trials and sometimes even after appeal. The system resides on a mainframe platform and has more than 3,000 programs. Approximately 100 agencies and 9,500 users access the system each day.

Palm Beach County, Florida. Palm Beach County has not completed its IJIS project. It is in contract negotiations for a CJIS (including adult criminal, traffic, and juvenile components) and is in the final stages of selecting a vendor for its civil information system (which includes family, domestic violence, county civil, circuit civil, and probate / mental health components). The county would like to have an operational system by the year 2000.

Pinellas County, Florida. This IJIS includes criminal, civil, and juvenile cases. The juvenile system is a clone of the adult system with more restricted access. The agencies and the courts have been sharing data since 1972. The Pinellas County IJIS does not include the appellate courts or federal justice agencies, but it does provide access to most court agencies, including juvenile treatment centers and social service agencies.

Volusia County, Florida. The Volusia County criminal justice system handles criminal cases and defendants for Volusia County only; it does not serve the other three counties assigned to the court circuit. It also houses juvenile warrants and is analyzing a juvenile witness system. The IJIS has been fully operational since January 1982. It includes inmate roster and banking systems, pretrial release management and case tracking, victim-witness notification, career criminal monitoring and alerts, warrants, cash bond tracking, and accounting. The jail commissary will be included in the future. The IJIS also provides ad hoc and regularly scheduled reports to member agencies, newspapers, and colleges, as approved.

Ada County, Idaho. The jurisdictional scope of the Ada County IJIS is criminal: primarily misdemeanors, initial felony appearances, and traffic infractions. The IJIS does not have a broad scope; it includes the limited and general jurisdiction courts, prosecutors, public defenders, the jail, and DMV. It has been fully operational since 1981.

Saginaw County, Michigan. The Saginaw County IJIS has two discrete systems, criminal and civil, which were developed separately. The juvenile system is two-thirds completed. County officials describe their system as substantially rather than fully integrated. The criminal module was implemented in 1986, and the probation module in 1988. The IJIS features an impressive system that generates many critical forms such as warrants, complaints, and notification forms.

Berrien County, Michigan. The criminal and traffic modules are the most sophisticated components of the Berrien County IJIS. All agencies can access case management systems for civil, juvenile, and probate cases.

Douglas County, Nebraska. The Douglas County IJIS includes civil, criminal, and juvenile cases. The system has been fully operational since 1980. The IJIS scope is fairly broad, but does not include the appellate courts, treatment centers, or DMV. The FBI and the Bureau of Alcohol, Tobacco and Firearms can view data.

Montgomery County, Pennsylvania. The jurisdictional scope of the Montgomery County IJIS is both criminal and civil, including the Register of Wills. The system became fully operational in 1988 after a six-stage phased-in implementation plan. The IJIS has a fairly broad countywide scope and includes all courts and agencies except for the appellate courts, treatment centers, and DMV.

Knox County, Tennessee. The Knox County IJIS covers only criminal jurisdiction, but the inclusion of civil cases is planned. The criminal justice system became operational in 1998. The Knox County IJIS is unusual in that the grand jury is one of its users.

Harris County, Texas. Harris County's IJIS—called JIMS, or the Justice Information Management System—includes criminal, civil, and juvenile cases. JIMS serves more than 15,400 users in 144 county courts and agencies, 111 noncounty agencies (including municipalities and school districts), 11 state agencies, and 15 federal agencies. JIMS also supports more than 800 private-sector subscriber companies under contract with the county through the Harris County District Clerk's Office. Harris County has been updating its system since its initial development in 1974 and created a JIMS department in 1977. It is currently one of the most comprehensive integrated systems in the United States.

Waukesha County, Wisconsin. The jurisdictional scope of the Waukesha County system includes both criminal and juvenile cases. Civil cases are managed on a different statewide system. The Waukesha County IJIS does not include appellate courts, defense attorneys, treatment centers, DMV, or probation, but it does include the county council and the parks and land-use department. Portions of the system have been operational since 1988, with the system becoming fully operational in 1997.

Policy Structure

The policy structure of the countywide IJISs appears to be more informal and staff-driven than that of statewide IJISs. Management teams, rather than policy advisory committees, drive development at the county level.

None of the countywide IJIS committees had statutory authority. Several were appointed by a county board or comparable authority, but several organized on their own with no official imprimatur or were formed through interagency agreements. The composition of countywide governing bodies emphasized users. Legislative representatives were not included on any of the county bodies. Decisions regarding system design, construction, maintenance, implementation, and operation were usually made by committees at the county level. The same was true for IJIS maintenance: The responsibility for countywide IJIS maintenance was usually given to information services managers or other technical staff at the county level with little or no policy-level involvement.

Integrated Justice Information System Infrastructure

As with the statewide IJIS, both online and batch transfer from a shared database are data interchange methods used by the countywide IJIS. In Sacramento County, for example, all CJIS components are mainframe systems that share database tables. Participating agencies use dumb terminals or terminal emulations on personal computers to access the CJIS. In Dade County, access to the three primary justice information systems ranges from limited online access for the public to full online access for primary agency users to online update capability for those with appropriate security. The system offers both batch and online data transfer, and several agencies create ad hoc reports. Montgomery County has approximately 750 PCs networked to an online database. The county also supports a bulletin board system for remote access to public information.

Countywide IJISs are similar to statewide IJISs in that the majority do not integrate the Internet into their IJIS. Only Harris and San Diego Counties have created a role for the Internet in their systems. Harris County posts reports on the Internet, including a great deal of information regarding their system. San Diego County posts traffic school information on the Internet. The county is exploring a system that will allow the public to pay fines, register for traffic school, and access court records through the IJIS.

Although the majority of countywide systems do not have an Internet presence on their systems, many are looking into it.

Standards

Unlike statewide IJISs, all countywide IJISs have data, performance, and security standards. However, not all countywide IJIS have data dictionaries or formalized written performance guidelines.

Data Standards. Several counties reported having data standards, but have not formalized them with a data dictionary. Sacramento County based data standards for most fields in its IJIS juvenile module on its CJIS standards. Berrien County stated that it was implementing the state data standards as its standards. San Diego County reported using state and federal data standards. Montgomery County uses structured COBOL–85. Volusia County employs a database manager to review all new tables and columns to keep them consistent with standards. The county tries to keep the presentation common among different screens, but it will try to accommodate the specific needs of user agencies that may require variations. In Ventura County, the person who discovers an error, corrects the error.

Performance Standards. Ventura County maintains case-closing standards such as traffic school eligibility and flags for mandatory appearances that cannot be overridden. One county reported strict control over what users can and cannot do. If someone changes data in the system, the system identifies who made the change. In Kern County, fines are immediately entered into accounts receivable, and input errors are highlighted. In Sacramento County, each agency is responsible for entering certain data, and common code tables ensure that all information is entered the same way. Knox County reported real-time updates.

Security Standards. Several counties mentioned that their security standards involved passwords. In one Michigan county, the level of access is determined during the sign-on process. One user reported that physical security standards were in place both for the data center and for data at the user level. Several county officials surveyed mentioned that system software handled security. Another user reported a tier of security standards that included several levels of passwords, situational analyses, transactional audits, and exception reports that show unsuccessful attempts by people who try to log on. In Dade County, each agency security administrator is responsible for maintaining user security and access within his or her agency. One Michigan county court administrator reported that he would like more stringent security, such as passwords rotation. Other counties also reported passwords that do not expire. In Ada County, Idaho, only certain personnel have authority to alter or delete data. Waukesha County assembled security groups made up of staff members who limit what screens can be accessed and what types of cases or data can be accessed.

Achievement of Project Objectives

The reduction of redundant data entry was the most frequently cited countywide project objective. San Diego County was the only county that mentioned year 2000 (Y2K) compliance as a project objective. Other objectives cited by the county included building systems quickly and inexpensively within the constraints of system availability, achieving high reliability, and sharing as much information as allowed by law. Project objectives mentioned by other counties included an increase in information sharing, improved timeliness and reliability of data sharing, standardized equipment, meeting state data standards, eliminating paper processes, providing a central location for the data, stabilizing staff size, providing public information, and meeting department needs for information tracking and reporting. One respondent remarked that it was difficult to eliminate paper processes because of the lack of control over users' business practices.

Implementation Cost Estimates and Integrated Justice Information System Funding Sources

Half the countywide IJIS respondents did not know the implementation costs of their systems. Implementation estimates from the half that did know ranged from $400,000 to $20 million. Several estimates were in the $1 million to $2 million range, and several were in the $16 million to $20 million range. Countywide IJISs relied more on local funds than did statewide IJISs. The majority of the countywide IJISs were funded by county, rather than by federal, funds. One county that needs $18 million over the next several years to implement its system has applied for a $14 million federal COPSMORE grant that would provide $10.3 million for a $3.4 million match.

Volusia County, Florida, has compiled actual cost-benefit data that show the CJIS database has saved the county millions of dollars. A study was conducted in 1990 to examine the reduction of the county's jail population. The CJIS database aided the analysis and identified bottlenecks. Based on the study, procedures were put in place, maximum time-to-file limits were set, and blind filing was implemented, resulting in a 28-percent reduction in the daily inmate population and a 20-percent reduction in the time from arrest to arraignment. The CJIS application was used to perform the study and help monitor the imposed standards. The county council documented $78 million in savings resulting from the new procedures and filing requirements. Without IJIS, data collection from all the different agencies necessary to carry out the study would have been difficult, if not impossible.

Lessons Learned and Obstacles Overcome

One respondent indicated that he wished that the initial approach to project design focused more on integration than on compartmentalization. Another wished that his jurisdiction had implemented one module at a time. Yet another respondent mentioned that project coordinators had

allowed programs to become too complex. Another information services manager thought it was a mistake to align the IJIS system with the rest of the county and that it would be better to remain semi-independent. Better preparation for Y2K issues was a lesson learned by one county. Another wished for a design that allowed more interaction between personal computers and the mainframe. One respondent remarked that subsequent projects would ensure easier access to information. The county currently uses Standard Query Language and a Statistical Analysis System to extract and manipulate data, which requires technical expertise and is too slow. Also, the respondent's system is not flexible enough, making it difficult to change or customize.

Respondents from countywide IJISs did not identify funding as an obstacle, unlike their statewide IJIS counterparts. However, one respondent mentioned that juggling available resources was difficult. Two respondents said politics, not technical difficulties, were obstacles. To ensure cooperation from all parties, agencies need to understand the benefits of sharing information and trust that security can be implemented at whatever level is determined necessary. Selfishness concerning others' data needs was mentioned as an obstacle. Others mentioned problems that develop when information systems encounter existing office procedures. Two respondents mentioned the problem of switching from electric typewriters to personal computers.

Recommended Strategies

The recommended strategies of respondents fell into two categories: (1) how to get people to support the IJIS effort and (2) how to design the best IJIS possible. Several people mentioned the importance of getting agency leaders involved and committed early, perhaps with a written memorandum of agreement, to ensure their commitment. A suggestion was made to tie the project to other initiatives such as a regional fingerprint laboratory. Another suggestion was to have at least one key person in a high position with the vision to see what can be accomplished and have this person share that vision with upper management and elected officials. The importance of building a strong foundation and securing funding also was mentioned.

Recommended strategies for obtaining the best IJIS design include researching the technology available to design the best system and taking advantage of new technologies. Other suggestions included making documentation a strong priority, eliminating paper processes, avoiding imaging because it creates more paper, putting a significant amount of information on the Internet, and avoiding reliance on one mainframe to operate the system. One respondent suggested stepping back a bit and asking, "Why do we do things the way we do—is there a statute?" Information systems should not mimic paper procedures. Another respondent emphasized the importance of determining the needs of the system without regard to funding because if needs are made to fit financial resources, the system will not be satisfactory.

Other recommended strategies included buying a package currently installed in a neighboring county rather than developing a new system, selecting—and staying with—one vendor, selecting tools that allow for quick development and a stable production environment, providing more training for users, and making users an integral part of design and testing. One county assigns a person in each department as a data-processing coordinator to serve as a contact for all IJIS problems. The county also has "help desk" staff trained to answer routine problems. Another county suggested using money to get and keep competent technical staff and using the incremental approach to development.

Survey List of Counties and States Planning, Developing, or Operating Integrated Justice Systems

Information was gathered for the integration survey by contacting all state court administrators and management information system directors and asking them for referrals to integrated systems. Contacts in those jurisdictions were then interviewed.

State	Level	Response
Alabama	No Data	No Data
Alaska	Statewide	Under Way
Arizona	Statewide	Planned
Arkansas	Statewide	None Planned
California	Kern County	Yes
California	Los Angeles County	Yes
California	Marin County	Yes
California	Orange County	Yes
California	Sacramento County	Yes
California	San Diego Municipal Court	Yes
California	San Francisco	Yes
California	Ventura County	Yes
Colorado	Statewide	Yes
Connecticut	Statewide	Yes
District of Columbia	District of Columbia Superior Court	Yes
Delaware	Statewide	Yes
Florida	Dade County	Yes
Florida	Lee County	Yes
Florida	Palm Beach County	Under Way
Florida	Pinellas County	Yes
Florida	Volusia County	Yes
Georgia	No Data	No Data
Hawaii	Statewide	Planned
Idaho	Ada County	Yes
Illinois	No Data	No Data
Indiana	No Data	No Data
Iowa	No Data	No Data
Kansas	Statewide	Under Way
Kentucky	Statewide	Under Way
Louisiana	Gretna County	Yes
Maine	No Data	No Data
Maryland	Statewide	Under Way
Maryland	Baltimore County	Yes
Massachusetts	Statewide	Planning

State	Level	Response
Michigan	Statewide	Under Way
Michigan	Berrien County	Yes
Michigan	Saginaw County	Yes
Minnesota	Statewide	Yes
Mississippi	Statewide	Planning
Missouri	Statewide	Under Way
Missouri	Boone County	Yes
Montana	Statewide	Planning
Nebraska	Douglas County	Yes
Nebraska	Lancaster County	Yes
Nebraska	Statewide	Under Way
Nevada	Statewide	Planning
New Hampshire	Statewide	Yes
New Jersey	Statewide	Yes
New Mexico	No Data	No Data
New York	Limited statewide	Yes
New York	Manhattan—Midtown Community Court	Yes
North Carolina	Statewide	Planning
North Dakota	Statewide	Yes
Ohio	Shaker Heights Municipal Court	No
Oklahoma	No Data	No Data
Oregon	Statewide	Under Way
Pennsylvania	Statewide	Planning
Pennsylvania	Montgomery County	Yes
Rhode Island	Statewide	Planning
South Carolina	County	Yes
South Dakota	Statewide	Yes
Tennessee	Knox County	Yes
Texas	Harris County	Yes
Utah	No Data	No Data
Vermont	Statewide	Yes
Virginia	No Data	No Data
Washington	Pierce County	Limited
West Virginia	No Data	No Data
Wisconsin	Waukesha County	Yes
Wyoming	Statewide	Limited

Scope of State and County Agency Involvement in Integrated Justice Information Systems

Jurisdiction	Level	LJC	GJC	JUV	APP	FED	PROS	PD	PRIV
Connecticut	State	NA	Y	Y	N	Y	Y	Y	Y
Delaware	State	N	Y	N	N	N	Y	Y	F
Michigan	State	Y	Y	Y	Y	N	Y	N	N
Missouri	State	F	Y	F	Y	N	F	F	F
Nebraska	State	Y	Y	Y	N	N	Y	Y	N
New Hampshire	State	Y	Y	Y	Y	N	Y	Y	N
New Jersey	State	Y	Y	Y	Y	Y	Y	Y	Y
Rhode Island	State	N	F	F	F	N	F	F	F
South Dakota	State	Y	Y	F	N	N	Y	Y	N
Vermont	State	N	Y	N	N	N	F	Y	N
Kern Co., CA	County	Y	Y	Y	N	N	Y	Y	Y
Sacramento Co., CA	County	Y	Y	F	N	N	Y	Y	N
San Diego Co., CA	County	Y	Y	Y	N	N	Y	Y	F
Ventura Co., CA	County	Y	Y	Y	Y	N	Y	Y	Y
Dade Co., FL/CJIS	County	Y	Y	Y	L	Y	Y	Y	Y
Dade Co., FL/Civil	County	Y	Y	N	L	N	N	N	Y
Dade Co., FL/Traffic	County	Y	Y	N	N	N	Y	Y	Y
Palm Beach Co., FL	County	Y	N	Y	F	F	Y	Y	Y
Pinellas Co., FL	County	Y	Y	Y	N	N	Y	Y	Y
Volusia Co., FL	County	Y	Y	L	N	Y	Y	Y	Y
Ada Co., ID	County	Y	Y	N	N	N	Y	Y	N
Berrien Co., MI	County	Y	Y	S	N	N	Y	N	N
Saginaw Co., MI	County	Y	Y	F	N	N	Y	Y	N
Douglas Co., NE	County	Y	Y	Y	N	Y	Y	Y	Y
Montgomery Co., PA	County	Y	Y	Y	N	Y	Y	Y	Y
Knox Co., TN	County	N	Y	U	N	Y	Y	Y	Y
Harris Co., TX	County	Y	Y	N	N	Y	Y	N	Y
Waukesha Co., WI	County	Y	Y	Y	N	N	Y	N	N

Abbreviation Legend

Agency Type

LJC	Limited jurisdiction courts
GJC	General jurisdiction courts
JUV	Juvenile courts
APP	Appellate courts
FED	Federal justice agencies
PROS	Prosecution
PD	Public defenders
PRIV	Private attorneys

Responses

NA	Not applicable
Y	Yes
N	No
F	Future
L	Limited
S	Some
M	Maybe
U	Under way

Jurisdiction	Level	CORR	LE	SS	TC	DMV	PUB	PROB	COMM
Connecticut	State	Y	Y	F	F	Y	Y	Y	NA
Delaware	State	Y	Y	Y	Y	Y	Y	Y	F
Michigan	State	Y	Y	Y	N	Y	Y	F	N
Missouri	State	F	F	F	M	F	F	F	N
Nebraska	State	Y	Y	Y	N	Y	F	Y	N
New Hampshire	State	F	Y	N	N	Y	N	F	N
New Jersey	State	Y	Y	Y	N	Y	Y	Y	Y
Rhode Island	State	F	F	F	N	N	F	F	F
South Dakota	State	U	Y	Y	N	Y	N	Y	N
Vermont	State	Y	Y	N	N	Y	N	Y	N
Kern Co., CA	County	Y	Y	Y	Y	Y	Y	Y	N
Sacramento Co., CA	County	Y	Y	Y	N	Y	N	Y	N
San Diego Co., CA	County	Y	Y	N	F	Y	F	Y	N
Ventura Co., CA	County	N	Y	N	Y	Y	Y	Y	Y
Dade Co., FL/CJIS	County	Y	Y	Y	Y	N	Y	Y	Y
Dade Co., FL/Civil	County	N	N	Y	Y	N	Y	N	Y
Dade Co., FL/Traffic	County	Y	Y	Y	Y	Y	Y	Y	Y
Palm Beach Co., FL	County	Y	Y	Y	Y	F	Y	Y	N
Pinellas Co., FL	County	Y	Y	Y	Y	Y	Y	Y	Y
Volusia Co., FL	County	Y	Y	Y	Y	Y	Y	Y	Y
Ada Co., ID	County	N	Y	N	N	Y	N	N	N
Berrien Co., MI	County	Y	Y	Y	N	N	N	Y	N
Saginaw Co., MI	County	N	Y	N	N	N	Y	Y	N
Douglas Co., NE	County	Y	Y	Y	N	N	Y	Y	N
Montgomery Co., PA	County	Y	Y	Y	N	N	Y	Y	Y
Knox Co., TN	County	Y	Y	Y	Y, 1	N	Y	Y	N
Harris Co., TX	County	Y	Y	Y	N	Y	Y	Y	Y
Waukesha Co., WI	County	Y	Y	Y	N	N	Y	N	N

Abbreviation Legend

Agency Type

CORR	Corrections
LE	Law enforcement
SS	Social services
TC	Treatment centers
DMV	Department/Division of motor vehicles
PUB	Public
PROB	Probation
COMM	Commercial public data resellers

Responses

NA	Not applicable
Y	Yes
N	No
F	Future
L	Limited
S	Some
M	Maybe
U	Under way

Sources for Further Information

For more information on court automation and integration, contact:

Bureau of Justice Assistance
810 Seventh Street NW.
Washington, DC 20531
202–514–5947
World Wide Web: http://www.ojp.usdoj.gov/BJA

Bureau of Justice Assistance Clearinghouse
P.O. Box 6000
Rockville, MD 20849–6000
1–800–688–4252
World Wide Web: http://www.ncjrs.org

U.S. Department of Justice Response Center
1–800–421–6770 or 202–307–1480

SEARCH
The National Consortium for Justice Information and Statistics
7311 Greenhaven Drive, Suite 145
Sacramento, CA 95831
916–392–2550
World Wide Web: http://www.search.org

National Center for State Courts
300 Newport Avenue
Williamsburg, VA 23185
757–253–2000
World Wide Web: http://www.ncsc.dni.us/

Bureau of Justice Assistance Information

General Information

Callers may contact the U.S. Department of Justice Response Center for general information or specific needs, such as assistance in submitting grants applications and information on training. To contact the Response Center, call 1–800–421–6770 or write to 1100 Vermont Avenue NW., Washington, DC 20005.

Indepth Information

For more indepth information about BJA, its programs, and its funding opportunities, requesters can call the BJA Clearinghouse. The BJA Clearinghouse, a component of the National Criminal Justice Reference Service (NCJRS), shares BJA program information with state and local agencies and community groups across the country. Information specialists are available to provide reference and referral services, publication distribution, participation and support for conferences, and other networking and outreach activities. The Clearinghouse can be reached by:

- **Mail**
  P.O. Box 6000
  Rockville, MD 20849–6000
- **Visit**
  2277 Research Boulevard
  Rockville, MD 20850
- **Telephone**
  1–800–688–4252
  Monday through Friday
  8:30 a.m. to 7 p.m.
  eastern time
- **Fax**
  301–519–5212
- **Fax on Demand**
  1–800–688–4252
- **BJA Home Page**
  http://www.ojp.usdoj.gov/BJA
- **NCJRS World Wide Web**
  http://www.ncjrs.org
- **E-mail**
  askncjrs@ncjrs.org
- **JUSTINFO Newsletter**
  E-mail to listproc@ncjrs.org
  Leave the subject line blank
  In the body of the message, type:
  subscribe justinfo
  [your name]

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