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# National Evaluation Program, Phase I final Report: Court Information Systems: Preliminary findings and Issues

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## ABSTRACT

This paper is the first product of a Phase I investigation of court information system projects being performed under the LEAA National Evaluation Program. The investigation will focus on current knowledge of system costs and effectiveness, the feasibility and costs of learning more about such systems, and the planning for further evaluation.

This initial Phase I report reflects the results of two parallel research activities which have been underway. The first has involved gathering general available knowledge concerning court information systems. Extensive research from diverse sources was undertaken to develop an understanding and familiarity with the significant issues in the field. The second activity was an intensive search for and survey of existing court information system projects to develop a universe of court projects appropriate for further investigation.

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SECTION I  
INTRODUCTION

A. Nature and Focus of the Study

To improve their administration and management, many courts have developed or attempted to develop "court information systems". This study has focused on systems which address not only the operational data handling necessary for courts to process cases, but which also contribute to improvements in the courts' ability to manage their caseloads and operations through the production and use of periodic management and statistical reports. Such systems, if properly utilized by court personnel, can improve the effectiveness of a court in several ways: by reducing backlog and delay, by better treatment of witnesses, victims and defendants, and by more efficiently using available human and physical resources.

There are some fifty jurisdictions in the United States which are operating court information systems designed to assist trial courts in caseload management and provide the information required by court administrators to manage court operations. The question of how many of these operating court information systems are effective and efficient in improving the administration of justice is one of great interest to the Law Enforcement Assistance Administration, to the various State Planning Agencies and to the individual courts, themselves. Resource commitments and funding decisions can be improved if decision makers have sufficient information to enable them to select for implementation court information system projects which not only have a high likelihood of immediate success, but which, when successful, will greatly improve overall court effectiveness. Evaluative data would be of significant importance in identifying successful projects which accomplish such improvement. With such

evaluative information new projects would have a larger probability of success, and a number of jurisdictions could benefit from the replication of successful court information system projects. On the other hand, without evaluating the experience to date, courts will continue to "reinvent the wheel", or to repeat many costly mistakes of others.

This is the initial report of a Phase I investigation of court information system projects under the LEAA National Evaluation Program. The Phase I study focuses on determining what is presently known about the costs, success and effectiveness of court information system projects; how much more effectiveness could or should be obtained and at what cost; and if further evaluation seems warranted, how such a program should be carried out.

Included in Appendix A of this report are the results of the effort which bounded the "universe" of court information system projects for this study and which resulted in the listing of projects from which specific systems will be selected for the preparation of detailed descriptions and for consideration in the development of a general assessment framework. That effort resulted in the elimination from consideration, for the purposes of the Phase I evaluation, completely manual information support systems, juvenile court information systems (which are being evaluated in a parallel study), non-operational systems, and systems limited to non-caseflow management functions.

#### B. Study Bounds

This Phase I study of court information systems is concerned with the equipment, programs, procedures and personnel which provide information support to court management in operating and administering a medium to large trial court. Although such systems generally

involve the use of computers, systems which utilize other data processing techniques can be included within the bounds of the Phase I activity.

The systems considered in the study include only those which directly support the operational and management activities of court personnel in conducting the day-to-day business of the court. Individual information systems supporting only district attorney or other prosecutorial office (e.g., PROMIS), data systems supporting only probation or parole offices, defender organizations or other such court-related agencies have not been included with the court information systems under consideration. Nor have juvenile court information systems, which are being evaluated by the National Council for Juvenile Court Judges. (See Appendix.)

The Phase I investigation of court information systems is directly concerned with information systems, whether initially funded directly or indirectly by LEAA, state, county or local governments, which have the following functional characteristics:

1. support trial (civil and/or criminal) courts;
2. support caseflow management as well as other court operations and management;
3. are currently operational in their jurisdictions.

#### C. Purpose of this Report

This report reflects the results of two parallel research activities which have been underway since the study began. The first of these activities has involved in gathering and compiling of available general knowledge concerning court information systems. Background material from current literature, interviews with knowledgeable court administrative and management personnel, past research

activity, expert opinion and other sources of general information concerning court information systems was used to develop an understanding and familiarity with the significant issues in the field. The Appendix contains listings of those persons with whom either in-depth discussions of court information systems' issues were held or who provided significant information for inclusion in this report, as well as a listing of those officials who were interviewed by telephone.

In addition to the review of the general knowledge available in the court information system area an attempt was made to gather past findings of fact concerning such systems. Many discussions\* and conferences were held with personnel involved in operating, funding or planning court information systems. This activity included an intensive search for candidate projects through a search of the literature, structured telephone interviews, obtaining expert recommendations and other related efforts to gather existing findings. An extensive source bibliography covering court information systems was prepared and is included in the Appendix.

This report presents the general findings of these two activities, a general description of the court information system area, a discussion of existing standards for court information systems, a listing of the current "universe" of court information systems, a report on the search for past evaluation efforts in this area, and a discussion of the significant issues concerned with the planning, design, implementation and evaluation of the effectiveness of court information systems.

\* Extensive discussions were held with judges, court administrators and other attendees at the National Conference on Court Administration in Chicago, Illinois, September 22-23, 1975 and at the National Conference of Metropolitan Courts in St. Louis, Missouri, October 8-10, 1975.

## SECTION II PAST EVALUATION FINDINGS

Although there has been an intensive search of the court information systems literature, a telephone survey of some one hundred potential court information projects and discussions with funding decision makers within the LEAA Regional Offices and State Planning Agencies, the research team has uncovered only a few references to any approaches to evaluations of the systems and their effectiveness. Only five\* jurisdictions reported that they had accumulated any evaluation information and none reported that there had been formal evaluation activity any time since the court information project was initiated.

Discussions of the factors that contributed to the success or failure of court information systems generally brought responses concerning the lack of formalized system objectives, the difficulty of quantitative measurement in the court area, the political difficulties which prevented the system from being implemented as planned (such difficulties included conflicts between court clerks and administrators, and between state court administrators and county court administrators, and difficulties with State Planning Agencies or county commissioners in reaching planned or required funding levels). There apparently has been very little thought given to evaluating such projects although there were a number of informal appraisals of court information systems.

These informal comments included such statements as:

\* Hennepin County, Minnesota; State of Colorado, Beaver County, Pennsylvania; Passaic County, New Jersey; and City of Baltimore, Maryland. (Cuyahoga County, Ohio has developed limited project evaluation data.)

*"If you want to see an information system which failed and ended up with two million dollars down the drain, visit our city."*

*"Our system is a success only because our court administrator is strong enough to manage the judges."*

*"The key to our success has been the dedication of our presiding justice and our court administrator."*

*"I can tell you of one city where the court information system really bombed out."*

There have been some evaluative types of data collected by court personnel with reference to the court information system. This data has usually dealt with claims of improvements in court operations, i.e., reduced backlog, reduced time to trial, reduced jail population, alternative information processing methods resulting in reduced clerical workload, etc. These results have been reported in the current literature without any rigorous supporting methodology or extensive data collection process.

In general there is a dearth of adequate evaluative information available in the field of court information systems. It is hoped that during the intensive site visits to a representative group of courts with operating court information systems additional data and past findings concerning the evaluation of the systems will be uncovered.

### SECTION III

#### GENERAL DESCRIPTION: COURT INFORMATION SYSTEMS

##### A. Court Problems

It is generally recognized that trial courts throughout the United States are finding it increasingly difficult to carry out their functions in a satisfactory manner. This view has been supported by the many studies and analyses of the nation's court systems, which have been documented in special reports, described in speeches or articles by knowledgeable public figures, and covered by television and the press.

The Report on Courts<sup>1</sup> of the recent National Advisory Commission summarized present criminal court problems as follows:

*"The court system...is in serious difficulty. There are too many defendants for the existing system to handle effectively and efficiently. Backlogs are enormous; workloads are increasing. The entire court system is underfinanced." Moreover, "the crime problem is likely to grow rather than diminish in the coming decades."*

Despite this high degree of concern, however, the Commission found that:

*"the court system in the United States has proven relatively resistant to change, particularly in its structure and processes."*

These problems in the trial courts, both civil and criminal, relate to all aspects of court activities, operations, administration and management. In all of these areas, there has been a general reluctance or inability to make the changes that seem to be required, in part because of inadequate levels of manpower and other resources,

but also because of the inherent character of the judicial system. The Commission identified some of the reasons as including:

*"the local character of court organization, the independent status of the judiciary, and the conservative character of traditional judicial responsibilities."*

The problems of the courts have, of course, many different aspects, however, there is a general feeling, articulated in 1971 by Chief Justice Berger<sup>1</sup>, that top priority should be given to:

*"methods and machinery, to procedures and technique, to management and administration of judicial resources...."*

In response to the pressures which have been building within the court system because of increased workload, backlogs and consequent delays, and from without the court system because of public interest and the availability, in many jurisdictions, of federal funds, the courts have been turning to information systems technology in an attempt to make their operations more effective. Many of these courts have believed that significant improvements can be made in the management of cases through the installation of a court information system.

Caseflow management has been chosen as the central focus of the Phase I court information system investigation, not only because the movement of cases is at the heart of a trial court's operations, but also because the caseflow function is one which can be greatly aided by the availability of the accurate and timely information provided by an information system and has, therefore, been selected by many jurisdictions as the system's primary application.

Caseflow management theory and the ingredients necessary to achieve its effectiveness in court operations have been discussed

in publications of the National Advisory Commission as well as in reports of other commissions and institutes (including the American Bar Association Commission on Standards of Judicial Administration, and the Institute of Judicial Administration). Although each organization views caseflow management in a slightly different way, each deals with the steps available to court management in controlling and expediting the movement of cases through the various court processing stages.

The report of the National Advisory Commission on Standards and Goals included among its recommended standards on court administration, Standard 9.4, Caseflow Management<sup>1</sup>. This standard specifies the following essential steps of caseflow management and how they should be carried out in a trial court. These basic elements are discussed by the Commission in terms of the responsibility of judges for the management and movement of cases by accomplishing each of the following:

1. Scheduling of cases
2. Recordkeeping
3. Development of statistics
4. Caseflow monitoring
5. Judicial assignment
6. Maintaining a central source of information.

The report of the ABA Commission, covering Standards Relating to Trial Courts<sup>2</sup>, discusses the requirements for good caseflow management, specifying the following areas of importance:

1. General principles of court management (supervision, control, impartiality, etc.)

2. Elements of program (time standards, minimization of schedule conflicts, centralized supervision, continuous monitoring)
3. Standards of timely disposition (e.g., criminal trials on serious crimes - 90 days from arrest or summons and 60 days from arraignment)
4. Identifying and managing protracted cases
5. Managing potentially disruptive cases
6. Managing "short cause" dockets
7. Firm enforcement of its caseflow management procedures (e.g., recontinuances or extensions).

The State Judicial Information Systems Project of Project SEARCH, in a recent report<sup>3</sup>, summarized some of the key aspects of caseflow management as follows:

1. Scope - *"concerns all the activities that are directly related to the processing of cases through the court...."*
2. Importance - *"is crucial for the viability of the court system...."*
3. Requirement - *"cases should flow through the court in an orderly and expeditious manner that is fair to all parties concerned."*
4. Problem - *"unfortunately, in many trial courts, caseflow management is not identified by administrators and judges... as a distinct entity...."*

#### B. Court Information Systems Objectives and Standards

The problem area defined by Justice Berger and epitomized by the function of caseflow management may, indeed, be significantly

alleviated by the suitable information system, properly utilized by cognizant court management personnel and this has been accomplished in several jurisdictions. The nature of a "suitable" information system has also received a great deal of attention from commissions, institutes, and consultants in an increasingly large number of task studies and other projects. As a result, a number of standards and guidelines have been developed for court information systems. Such standards may provide the guideposts for courts considering the installation of an information system.

In their Report on Courts<sup>1</sup> the National Advisory Commission on Standards and Goals established a number of standards, under the general title of "Computers and the Courts". Among these, Standard 11.1, Court Administration, describes in general terms how computers can assist court administrative functions, including the monitoring of *"each individual criminal case as it proceeds through the system, even through the appellate court"*.

A more complete and detailed characterization of the standards that should be applied to court information systems is contained in the chapter by that name in the Report on the Criminal Justice System<sup>4</sup>, of the National Advisory Commission on Standards and Goals. This provides individual information system standards covering court information needs to accomplish the following functions:

1. Decision-making in individual cases (background defendant data and current case history)
2. Calendar management in the courts (ten categories of basic data on caseflow)
3. Court management data (ten categories of data on monthly caseflow and judicial personnel workloads)

4. Case management for prosecutors (eight categories of data to support change determination and case handling)
5. Research and evaluation in the courts (reference to Project SEARCH reports)
6. Case counting (description of the transactional and event data elements that are needed).

It can be seen that most of these information needs are part of, or closely related to, the information that is required to support effective case management.

Additional standards have been suggested by the American Bar Association, in its report on Court Organization<sup>5</sup> which describes standards for "Court Records, Statistics, and Information Systems". Under "General Principle", the report describes the capabilities that should be provided in a court information system, with respect to:

1. Uniformity throughout the system in items maintained
2. Information provided for inquiries, decisions and actions
3. Accurate and timely entry of information
4. Ready access by all interested parties, but with suitable controls and safeguards
5. Support to periodic studies and analyses of court operations and management.

In addition, standards are proposed for regulations concerning the system, its development and improvement, and selection of appropriate data processing systems.

The report<sup>3</sup> of the State Judicial Information Systems Project also discusses "three components of an effective caseflow management information system". These are specified as:

1. A specified set of nine types of data elements required for case monitoring
2. Six specific information items for case scheduling
3. Data on the operation of the caseflow management system itself (eleven items of data).

The standards and supporting descriptive material referenced and summarized above describe many of the functional requirements, goals and objectives of a court information system designed to support caseflow management. They do not, however, present either a complete statement of requirements or a detailed system design.

Court information systems have been developed from many different points of view to serve only one or several court information needs. Some systems are designed to handle relatively specific and limited applications or functions such as jury selection, traffic cases, parking tickets, case scheduling or court statistics. Others have been designed to assist in the management of only criminal, civil or juvenile cases, while some systems support only a single court or only one level of courts within a jurisdiction while others support all courts within a governmental unit (usually a county). The Phase I evaluation of court information systems is concerned with systems which, at a minimum, have the requirement to support the court in accomplishing caseflow management.

#### C. Court Information Systems Applications

There are, of course, a multitude of court activities or functions that can be supported by a data processing system since the

communication of information is fundamental to the process of management. Many general categories of such activities were identified in the standards discussion in the preceding section. The following presents a more complete inventory of the activities and uses to which courts have invoked the aid of data processing and court information systems.

Although the approach taken in the Phase I evaluation has emphasized the application of the information produced by the system to management, and in particular, to the management of caseflow through the court, there are other areas of court management supported by court information systems, such as personnel assignment, overall court activity and case statistics, personnel management, courtroom assignment, and planning and research. While many of these activities are related to the information needs of caseflow management, they are, in many courts, only limited applications performed for the court by its own data processing center or by the municipal or county data processing operation without regard to the broader information needs of the court.

Another set of court activities that may be supported by court information systems can be classified under the general heading of court administration. The words "court administration" denote the financial, personnel and other court support functions that do not involve, as does "management", the overall planning, direction and evaluation of the judicial processes. Court administration includes such financial functions as accounting, budgeting and payroll, personnel processing and personnel records, inventory and property control, and purchasing goods and services. All of these functions are, under the proper circumstances, good candidates for computerized support. It should be noted, in this connection, that the accounting and payroll functions were among the earliest business

applications for digital computers and are generally early applications in the governmental utilization of computers.

A third area for potential data processing support is that of court operational functions. These include the detailed day-to-day activities that carry out the substantive work of the courts. A large number of different activities requiring timely information are included in this area. Some typical court operational functions are case scheduling; preparation of notices to participants and other operational documents; jury selection; handling fines, bail and other payments; and maintaining a prisoner inventory. A more complete list of operational functions, together with lists for management and administration, are given in Table 2-1.

While in principle a data processing system can be designed to support any of the individual functions listed in the Table, or any combinations of such functions, there are obviously many data dependencies among them and, therefore, some applicational combinations have been associated in court information systems. In particular, many of the court operational functions can generate the data inputs that are required to support the court management functions. There are, as a result, economies involved in designing and operating a data system that is both operationally-based and which, in addition, serves the court's management needs. In addition to such cost savings, data inputs to a management system which are developed as part of a substantive court operating function tend to be more accurate and timely than such inputs obtained through non-operational processes.

#### D. Computerized Information Systems

In the previous section, the range of possible applications for court information systems was described. In this section, the generic

TABLE 2-1  
COURT INFORMATION SYSTEM APPLICATIONS

Management

Case Flow Management and Management Reports  
Attorney, Prosecutor, Judge, etc. Assignment  
Statistics on Court Activity and Status of Cases  
Personnel Management  
Court Room Assignment  
Planning, Research and Evaluation

Administration

Accounting and Budgeting  
Payroll; Other Financial Functions  
Personnel Processing and Records  
Inventory and Property Control  
Purchasing Goods and Services

Operational Functions

Case Initiation  
Case Scheduling  
Docketing  
Calendars  
Indexes  
Notices and Other Operational Documents  
Warrant and Summons Control  
Probation Support  
Jury Selection  
Fines, Bail, Other Payments  
Parking Ticket Processing  
Prisoner Inventory  
Interface with Criminal History, including Disposition  
Reporting  
Case Transfer for Appeal

functions that are involved in data processing will be identified and briefly discussed, and certain key system classifications will be defined.

All data processing systems must incorporate certain basic functions. These functions are listed below.

1. Capturing and inputting data
2. Establishing and maintaining data files
3. Calculating, converting, manipulating and processing information
4. Generating output reports in the form of listings, terminal displays or other formats.

In addition, many systems incorporate two additional data handling functions:

5. Transmitting information between distinct locations
6. Handling and responding to ad hoc queries.

The process of system design is concerned with the integration of these functions to accomplish the objectives of the information system. In computerized systems, such as in court information systems, data capture and input tends to be a dominant function in system design from two standpoints: cost relative to the cost of performing the other functions, and impact on data quality and timeliness.\* In fact, in many systems the requirement for input data quality and timeliness is responsible for 40% to 60% of the operational cost of the system.

\*This is true of "business" type applications, but not necessarily scientific and engineering ones.

Another important characteristic in the design of a court information system is whether it is to serve a single court location, or whether it will serve multiple locations, such as all the lower level courts in a large county or metropolitan area. If multiple jurisdictions are served by a single computer, the problems in accomplishing the functions of information transmission and handling queries are greatly increased. An approach which is applicable for the multiple jurisdiction case is the use of multiple computers, or perhaps minicomputers, to reduce the cost. These may either be completely autonomous, or tied together through the use of magnetic tapes or other suitable digital storage media, or by digital messages sent over land communication lines.

Two different modes of computer use are used in the design and operation of court information systems. In one, called the on-line mode, the user (i.e., judge, clerk, administrator) is directly connected to the computer through a suitable "terminal" which typically includes a typewriter-type keyboard for data entry and control, and a hard copy page printer and/or a television-like display device. In this operating mode, the computer can often be programmed (instructed) to assist the personnel who input data into the system, by presenting a format to be filled out and by making various checks for data completeness and consistency. Such a system allows a user to directly query the system files from the terminal, and receive a quick response at the terminal rather than waiting for the periodic production of daily, weekly or monthly reports. In the other, or batch mode, the user does not interact so directly with the computer. Generally, input data, queries, or requests for special reports are first recorded on magnetic tape or other media. All such recordings made during a certain period, such as a day, are collected (i.e., "batched") and presented to the court's data processor, which carries

out the necessary operations, and records results in suitable output reports.

Many computing systems can operate only in the batch mode while others have an on-line capability, usually with the batch mode as an option for the user's special requests. Although the quick response that is possible in the on-line mode is advantageous or even necessary in some caseflow applications, such as case scheduling (and particularly rescheduling), and supplying other case information needed by court personnel, most of the applications listed in Table 2-1 could be performed by a court information system in either mode. In the past the economic advantage in non-time critical applications in government operations was clearly with the batch mode. The cost comparison is, however, no longer so clear cut, in view both of improvements in on-line data processing services, and the emergence of relatively inexpensive minicomputers with on-line access capabilities.

Another important characteristic of computer systems considered for use in court applications is whether they are to be dedicated systems (i.e., used only for court work), or whether they are shared systems, that are used both for court and non-court work. Although shared systems are often less expensive for the user, they may impose problems in the allocation of priorities or in preserving adequate data security and privacy. In addition, some courts may feel that sharing a computer with non-court agencies violates the requirements for full independence of the judiciary from the other branches of government.

An additional computer system characteristic of importance to court information system applications is concerned with how the application software (i.e., computer programs for a specific court activity, such as case monitoring) is obtained when the system is being developed. The development of new software is frequently the

most costly part of developing a new computerized information system. Increasingly, however, software for at least some of the court applications that have been discussed is available either from computer manufacturers, software development firms, or from other court information system projects. It may be possible to save a great deal of development cost, however, at some sacrifice in systems features or performance, by using the software which is already available. The use of such "packaged" programs is one of the issues in court information systems discussed in the issues section of this report.

## SECTION IV COURT INFORMATION SYSTEM ISSUES

### A. Introduction

In-depth discussions with court administrators, judges, court management consultants, LEAA court and systems specialists, state planning agency representatives and other personnel involved in operating, funding and implementing court information system projects have uncovered a wide range of significant issues concerning such projects and their resulting systems. Together with an extensive literature search, which examined the existing documentation dealing with the requirements, uses and operation of court information systems, those discussions indicated that there are three primary areas of concern in the development and implementation of court information systems. These primary areas are listed below and are discussed in detail in the following sections:

1. Issues Concerning the Organization and Conduct of a Court Information Systems Project
  - These issues are concerned with (a) the personnel, funding, technological and other resources required for system development; (b) the intra- and inter-organizational relationships required to effectively organize and manage a project; and (c) the means for specifying the operational, management and administrative functions and services to be performed by the system.
2. Issues Concerning Factors in the Design and Operation of a Court Information System
  - Design and operation issues deal with (a) the selection of appropriate data processing equipment; (b)

the preparation of adequate computer programming software and documentation; and (c) the organizational, procedural and personnel resources required for system operation.

3. Issues Concerning the Impact of a Court Information System on the Justice System

- These issues are concerned with (a) the effectiveness of the system in meeting its objectives; (b) the procedural impact of the system on court personnel and processes; and (c) the impact of a system on the substantive dispensation of justice.

These primary issues are discussed below and reflect the fact that the objectives of court information projects are achieved, not only through direct intervention in the processes of the criminal justice system, but also through the second order effect of improved caseflow management and court administration on judicial operations. It has become apparent during the data gathering activity that many of those concerned with the operation and utilization of court information systems feel that the success and effectiveness of a system project is dependent in large measure on the acceptance of the system by court personnel and its utilization in management and administration. The system design, itself, may be of secondary importance in accomplishing the overall system objectives.

B. Issues Concerning the Organization and Conduct of a Court Information Project

1. Resources

Several issues relate to the resources required to conduct, implement and operate a court information system. Traditionally resources available to most courts have been extremely limited.

Qualified technical personnel familiar with court procedures are particularly difficult to hire within the budgetary constraints of the court environment.<sup>1</sup> A significant question, therefore, is to what extent a court should attempt to use its own personnel resources in developing and implementing a court information system and to what extent a court should rely on systems design, programming and data processing support from the county, municipal, or state data processing staff.<sup>6</sup> It has been reported<sup>7</sup> that "courts that have made the greatest progress in computerization have had their own staff". There has, on the other hand, been recognition<sup>8</sup> that since there may not be a continuing need for large numbers of computer specialists and senior analysts after system development, that the courts may wish to utilize outside resources such as consultants or service bureau organizations to supplement the in-house resources. Even where a court has chosen to maintain its own staff of technical personnel it is faced with the dilemma of either bringing into the court system qualified persons generally unfamiliar with court procedures and processes and providing them with on-the-job training or selecting from the existing court staff personnel who may benefit from instruction in information system technology through their attendance at specific training courses.<sup>9</sup>

Adequate funding to accomplish the design, implementation and continuing operation of a court information system is critical to the achievement of those objectives.<sup>10</sup> It has been pointed out by a state supreme court judge<sup>11</sup> that, "From the perspective of the judicial department this question of financing breaks down into two separate and frequently contradictory problems, both of which go to the heart of managing a completed system. The first problem is: where do we get the money to develop and install such a system? The second problem is: once a system is designed, installed and operating, where do we get the money to continue with the system?"

*The first problem involves us with the federal government and our state executive department; the second with our state legislature."*

This quest for funds intensifies a basic fear among court personnel of a potential loss of control over the administration of justice whether to the federal government or to the Governor's Office.<sup>11</sup> Courts have, in many cases, been wary of the offers of funding support from LEAA through the state planning agencies. Although such courts appear to feel that funding from state or county sources is more acceptable than federal funding, in order to implement such a system they must face the problems of trying to successfully compete for the generally large amount of funding support required.<sup>15</sup> Against the more politically glamorous funding uses, such as those in revenue-producing areas, the court information system may not fare well in the current era of retrenchment in expenditures by many governmental units. It appears, in addition, that not all courts recognize the need for a long-term funding commitment for the continued operation and maintenance of a court information system following its initial development and implementation using LEAA or other non-court budget funds.<sup>11</sup>

Many courts, contemplating the development of a court information system, explore the use of an existing "package" of computer instructions (software) for their system rather than paying for the programming of a unique set of programs to meet the individual needs of the court. Since the cost of computer programming is generally a very large portion of a court information system development budget, the potential savings to be achieved through the use of existing software is often very attractive to system planners. However, expert opinion on this matter differs, and consequently, on one hand courts are being told<sup>13</sup> that one such packaged program is a viable tool, well tested by the industry, for accomplishing the general

goals of a court system, while on the other hand experienced court administrative personnel<sup>14</sup> are warning that "systems planners for the courts should be wary of packaged systems that claim to handle all court operations. Courts have unique requirements that too often are not included in standard packages." This same issue, in another form, may be seen in courts' attempts to transfer or "borrow" an existing court information system design for direct installation in the implementing court. Although the contextual elements which would make such a transfer are not completely understood, it has been pointed out<sup>7</sup> that there is a natural tendency to emphasize the computer in such contemplated transfers rather than the information needs of the implementing court. For this reason the proposed transfer of information systems in toto (i.e., without careful analysis and adaptation) should be approached with skepticism.

Many courts, unfamiliar with modern management practices and the capabilities of the technology employed in developing information systems, have turned to the publicly-sponsored or supported technical assistance or educational organizations such as the National Center for the State Courts, the Institute for Court Management, the Institute of Judicial Administration, The American University, The MITRE Corporation and the National Council of Juvenile Court Judges for guidance and assistance in planning for, and implementing court systems. Other courts have sought such help from consultants in universities, accounting and management firms, while others have looked to the data processing or aerospace industry for assistance in system design and installation. There have been warnings that as industry recognizes the courts as a new marketplace that there may be "gross ignorance of the problems, haste and overoptimism, oversell and boondoggling".<sup>15</sup> The experience of courts with consultants of all types varies<sup>16</sup> from complete satisfaction to general unhappiness. There are presently only a few consultants who can make available

the type of service which an insider in the court community, familiar with the language and the requirements of the court, and a background in data processing can provide.<sup>9</sup> The issue facing the courts in this area is one of finding assistance that is objective, informed, and technically competent in developing a court information system. There is yet no central source of such assistance in this complex field so that the courts remain, for the most part, dependent upon the data processing industry and self-designated "experts" for guidance and support. Since available sources are often "big systems"-oriented, courts may overlook opportunities to achieve their information requirements through less expensive and less glamorous methods. Such alternatives as procedural improvements, reorganization and others may offer considerable savings of the limited resources available to courts.

## 2. Project Organization

The management of the development and implementation of a court information system is a complex task requiring extensive coordination among the various court organizations involved such as the clerks, judges, other system users, the bar, prosecutor and defense attorneys. To successfully develop and install a court information system which improves caseflow management and makes court administration more effective it is required that a single office or individual be charged with the decision-making responsibility for system implementation. In other courts, however, where administration has either not been centralized, or has not been a major concern of the presiding justice, there is a need for the establishment of such a focal point to assume the project management role. Three elements have been found to be essential if an information system is to be successfully introduced into such a court.<sup>17</sup> These elements are: an agreement among those agencies involved in system development on the specific goals and objectives of the information system; a working relationship among the various

using court organizations so that there can be continuing participation by personnel who can understand each other's points of views and work together in devising mutually satisfactory solutions to common system problems; and a designated arbitrator of unreconciled problems and questions of policy who can function as the project's ultimate decision maker.

In this regard, a related issue facing courts in developing an information system is the role of committees<sup>11</sup> or boards in guiding the design and implementation of a system and in achieving the three implementation elements. Such committees may include representatives from each of the using agencies, may be made up of the members of an existing judge's administrative committee, may include non-court personnel (i.e., representatives of funding sources) and in other cases, may represent "*all significant actors in the criminal justice system*".<sup>9</sup> Whatever their membership, committees may play a purely review or advisory role or may more actively participate in the planning, scheduling, budgeting and technical decisions required to manage a court information system project. Whether or not non-judicial elected officials, such as clerks of court, district attorneys, sheriffs and county commissioners can be effective members of such committees may depend upon the personal and political relationships among the individuals concerned as well as their interest in improvement in the management and administration of the courts.

Another concern of some courts is the application of the "separation of powers doctrine" to the organization of court information systems projects. Although in most jurisdictions the court's budget is controlled by the executive or legislative branches of government<sup>7</sup> it is becoming apparent to some judicial personnel<sup>11</sup> that to control the data or information which becomes necessary for the

courts to operate, and which becomes available from a court information system, is to exercise a degree of control over the courts themselves. For that reason, as well as the sensitivity of judges, particularly, about the potential misuse of certain court data (e.g., judge workload and criminal sentencing data) in the hands of non-judicial organizations, some courts have resisted participation by non-court personnel in the organization charged with the development and implementation of court information systems. Perhaps the Commonwealth of Massachusetts is a prime example of the application of the doctrine to court information systems. There the state's highest court has ruled that only under well-defined protections and procedures could the courts join even in a limited way with the executive branch of government in maintaining criminal justice court information in a non-court operated computer system.

The issue of extensive user participation in the design of the court information system is in the eyes of many observers a critical factor.<sup>17</sup> However, it has been pointed out<sup>14</sup> that to participate actively in the design process court administrators, judges and clerical personnel must familiarize themselves with data processing concepts and the benefits of technologically-advanced information systems. Such education requires not only an interest in the design process by the individuals concerned, but also a commitment by the presiding justice and other court managers to encourage the educational activity among court personnel.

The success of several system projects has been attributed to the strong support by court administrators<sup>14</sup> and judges<sup>17</sup> to the project organization and to the goals and objectives of the project itself. Where judges or administrators are neither directly involved in project planning and operations nor strongly supportive of the goal of better court management<sup>18</sup> (including greater participation

by the judges themselves in management and administration)<sup>11</sup>, it is unlikely that any resulting information system will be fully utilized or successful. The generally unclear roles of the various court organizations and the overlap of responsibilities in the operating environment are some of the factors which lead to the requirements for such involvement and support.

The issue of what project organization is required to effectively plan, organize, manage and conduct a court information system development is one which must be faced by the court and cannot be left for contractors, consultants or vendors<sup>17</sup> to resolve. The leadership, committee support, their responsibilities and the decision making authority must be clearly specified so that the many activities necessary in conducting a project can be effectively planned, funded and carried out.

### 3. Determination of Court Information Functions

One of the most critical issues facing a court in designing and implementing a court information system is the choice of functions to be accomplished by the system and the services to be provided by the system to the court and its associated agencies. That choice should, ideally, be based on a thorough analysis of the information needs of the court, the identification of alternate means for meeting those needs, and detailed cost estimates in order to select cost-effective functions for implementation. It has been pointed out<sup>11</sup> that if a court wants a good system which will be of use to it and its operations, it must articulate, to the people who will design and implement it, as precisely as possible, what the court will want the system to produce. In practice this ideal process is rarely met. The selection of functions to be initially accomplished by the system may result, not from any analytic study but from the need to deal with an extremely pressing problem caused by a

shortage of personnel or by a significant overload of the existing case processing system, such as the need to clear the civil backlog. Some courts<sup>19</sup> have started this function selection by choosing those functions that could be most readily programmed for a computer.

A more formal procedure, systems analysis, involving an examination of methods for improving court operations and a "pre-test" of those methods to obtain estimates of the effect of the proposed changes on resources and workloads, has been recommended for aiding in the choice of system functions<sup>20</sup>. This approach requires that: (a) the court system as it exists be described in detail; (b) there be extensive data collection; (c) the constraints on system operation be identified; and (d) that a simulation program be prepared. Such an approach, however, may be both expensive and time consuming and its benefits must be carefully weighed against the potential gains of its use.

Whether a formal systems analysis approach is followed or a less structured path is taken in selecting functions and services to be undertaken by a court information system it is important that the court seek to examine its needs and move into the future in limited discrete steps<sup>12</sup> rather than in a giant leap. Courts have been advised<sup>12</sup> to refrain from plunging *"into a specialized application without taking a broad perspective embracing overall court objectives"*. Courts should *"think through these objectives carefully and establish criteria for judging new ways of operating"*. They should *"make an overall survey; compare a variety of alternatives"* and give *"some thought to testing and the problems of changing over to the new systems"*.

Whatever approach is taken to analyze the court's requirements and determine the specific functions and services to be provided, the court is faced with many choices among possible information

system applications. The court must examine the ways that the operational information needs of the individual court as well as the statistical information needs of court or governmental administration at the municipal, county and state levels can be met through the court's information system.<sup>1</sup> This consideration should include an analysis of the extent that non-operational administrative functions, such as: payroll, personnel, accounting, budgeting, purchasing, inventory and property control, be included in the functions planned for the court information system.<sup>1</sup> Since such a system can perform multiple case-flow operational functions such as case indexing, jury selection, court calendaring,<sup>1</sup> docketing, and notice production as well as providing management reports and statistics, the selection of specific functions for implementation may depend on a comparison of the costs of collecting, processing, retrieving and communicating the information against the overall benefits to be achieved by making available timely and accurate data to court managers, administrators and operational personnel. Although such a cost/benefit analysis is difficult to perform within the court environment, it may, if carried out successfully, lead to valuable insights into current court operations and, therefore, will be useful in structuring improved court management and administration.

The recognition of caseflow management<sup>21</sup> as a separate and distinct court function requiring both procedures and management support<sup>4</sup> is a necessary initial step in setting requirements for the information system. Such a step may be fundamental to a systematic approach to system development. It requires, however, a detailed examination of the court's operational processes which effectuate the basic court function, the dispensation of justice.<sup>22</sup>

The function of court scheduling has been suggested as a possible application for court information systems by a number of court managers.<sup>1</sup> A National Science Foundation Grant for research into computer

programs for court scheduling is currently underway, but complete results are not yet available. The study has found, however, that many courts are not using such programs because, among other reasons, system designers have a penchant to automate court operations as they are rather than attempt to improve upon those operations. It has been pointed out<sup>11</sup>, in addition, that there is apparently "no jurisdiction, no matter how far advanced in the use of technology, that has been able to successfully implement...a fully automated schedule". Courts contemplating the inclusion of court scheduling have been advised<sup>11</sup> "not to attempt any 'total automated scheduling process' until the overall automation project is well settled and further, not to attempt a level of sophistication in a scheduling process which is beyond the implementation capabilities of the staff and the justice system". Certainly any move to include court scheduling<sup>19</sup> or, in fact, any other complex court function as an application of a court information system should be made only after a careful analysis of not only the requirement (i.e., the need to effectively perform the activity) but also the technological capability available to achieve the intended results (especially the man/machine interface).

The determination of the functions and services to be provided by the court information systems must be performed within the boundaries established by the real world constraints which are found in the court environment.<sup>12</sup> Such constraints include the economic factors which affect the acceptance and utilization of the system by the judges, clerks, attorneys and other participants in the judicial process; the environmental factors requiring the maintenance of high standards of justice even at the expense of efficiency or delay; the public policy as expressed through statutes at both the federal and state levels which may restrict the potential application of the system; the organizational factors which provide the structure in

which the system must operate; the organizational differences between the court and the municipality and among the counties; and the availability of the necessary technology to assist and implement the functions and services selected by the system designers.

### C. Issues Concerning Factors in the Design and Operation of a Court Information System

#### 1. Equipment Selection

The design of a court information system should proceed<sup>12</sup> from the determination of information requirements, to the development of a system concept, and then to a detailed system performance description and only lastly to the selection of computer programs and equipment appropriate to meet the performance requirements. However, many times the initial issue arising in the development of a system is that of equipment selection. The court or other development agency may find that existing computers, such as those located at county or municipal offices are available for the processing of court information. Courts are, however, being warned<sup>6</sup> about the problems of using a county or municipal data processing center which may be heavily engaged in many high priority tasks unrelated to court information and which can result in severely limiting the speed with which the center could respond to court information system job requests. One court was told<sup>6</sup> "...it is obvious that if the choice had to be made as to whether a county payroll or a civil litigant index were to be run at a critical moment, the choice would clearly be to run the payroll". This issue of whether or not the court should have its own "dedicated" data processing support has been seen by one presiding judge in a large city as being one of control. He believes that "he who controls the information system, controls the operation" and he strongly advocates the use of dedicated systems in the courts to prevent the potential misuse of court

information by non-court individuals and interests. It should be noted, however, that most existing court information systems use non-court computers with generally favorable results. Studies<sup>9</sup> have shown that the success of a given system does not depend on "ownership" of the computer.

As indicated in the discussion of issues concerned with project organization, the question of the extent to which court data should be shared with non-court agencies is of great importance to judges and others involved in judicial administration. The availability of direct access to a central data base containing specific court information through the use of interactive terminal devices is of similar concern. Such devices may be located in the offices of the prosecutors, attorneys, sheriffs, clerks and other court-related personnel who may not be under direct court administrative control, and, therefore, may be potential sources of misuse of sensitive judicial information.

When a court has made the decision not to share its data processing equipment with another agency of government it is faced with the question of whether to share the equipment with an agency outside of government. There are a number of data processing "service bureaus" that provide, for a fee, a wide variety of data processing services to organizations who do not have the internal capability to prepare and process the data required for the organization's information system. Such services offer a court an opportunity to avoid the problem of leasing or purchasing data processing equipment as well as the difficulties inherent in maintaining a staff of highly trained computer operating personnel to provide the court with a data processing capability. As pointed out previously, however, much court information is of a sensitive nature, some of it classified by the court as highly confidential and all of it critical to the conduct

of the court's business, and there may be, therefore, a reluctance by many courts to allow such information to be in the hands of a private organization.

Courts are often approached by computer salesmen<sup>12</sup> who stress the latest advances in the data processing technology. Such advances include the application of electronic devices such as minicomputers, microprocessors, distributed data processors, intelligent terminals, and other complex equipments which reflect the industry emphasis on greater processing capability at reduced cost. Most courts are unprepared to deal with the technical information concerning these devices which is supplied by the data processing equipment industry and may respond by selection of equipment which is actually inappropriate for the system needs of the court. One statewide court system in a large southern state had gone ahead with planning for the development of a court information system which was to include the deployment of five large independent data processing centers<sup>15</sup> where a single center would have been preferred. This very costly plan apparently resulted from the overly optimistic proposals made to the court by the equipment manufacturer's representatives. This problem of dealing with the often conflicting and optimistic claims of the equipment industry relates to the issue of education of judges and court administrators in the field of information systems.

There have been jurisdictions such as two New Jersey county courts<sup>9</sup> which have applied individual minicomputers to provide an integrated court information system, while elsewhere there are statewide central facilities, such as those in Colorado which have been designed to serve the individual needs of all of the state's municipal and county courts.<sup>13</sup> The determination of whether a court's information needs will be better satisfied through the operation of its own data processing equipment, through a state judicial data processing center, through sharing equipment with other government agencies

at the county or municipal levels, or through the use of industry-operated service bureaus can best be determined only after a comprehensive analysis of the court's needs, the consideration of alternative means for meeting those needs<sup>4</sup>, and the selection of equipment or services which is the most cost-effective.

The issues concerning equipment selection should not obscure the fact that an information system which provides necessary information about the different aspects of a court's operations does not necessarily require a computer or other electronic data processing equipment.<sup>22</sup> Actually, such a system's equipment can range from the non-computer utilization of index cards, desk calculators, magnetic display boards, and memory typewriters through to the use of microfilm storage and retrieval devices, powered files and other manual or semi-automatic data processing equipment. It has been pointed out<sup>12</sup> that *"there is a precedent for mixed systems involving a spectrum of automation in the same system from manual manipulation to full automation"*. Systems such as California's Integrated Court/Automation Information System<sup>11</sup> were designed with the goal of maximizing the economical and effective use of both manual and automated techniques in court operations.

## 2. Computer Programming Software and Documentation

The development of the computer programs (the instructions required for the computer to accomplish the desired processing of the data) necessary for a court information system is a complex technical effort. Once developed and installed, the computer programs, like the other elements of the system, require maintenance so as to remain current with the information needs of the court and to incorporate changes and corrections to system software. The accomplishment of computer program maintenance, however, can be achieved only if the initial programs have been adequately documented during

the development effort. Documentation of a system will include<sup>4</sup> descriptions of the programs such as functional specifications, flow charts, data base structure, file structures, data links, edit criteria, program listings and data element descriptions. Additional system documentation may include module and component descriptions, user manuals, processing mode descriptions and procedures for system recovery in case of system failure.<sup>13</sup> The extent that the court should require and be prepared to pay for documentation adequate to accomplish software maintenance is, then, an important issue to the court. This issue is related to the problem of the court's ability to either acquire a competent data processing staff or have access to such a staff at the municipal, county or state level.

The utilization of "package" computer programs is of some interest in the discussion of the issue of adequate computer program documentation. Several observers<sup>14</sup> of the court information system field have indicated that such programs are generally not sufficiently documented to allow the court to make efficient use of the system when new or different applications are to be included in the system's capability. Without the necessary documentation the court must rely solely on the industrial supplier of the computer program package to make changes and improvements in the system's operation. This reliance is costly to the court, both in terms of the expense for accomplishing program modifications and in the severe limitations it imposes on the development of needed improvements and new applications for the information system.

This issue is also faced by the court which attempts to develop its own computer programs and other system software using court or other government agency data processing personnel. The necessity for adequate documentation is often overlooked by the system application designers and programmers because of their familiarity with

the design and the resulting software. Since they are usually involved in the design, implementation and operational phases of system development such personnel may neglect to document the program and its modifications because of their close relationship with each other and with the details of the system. It is only when key personnel leave the court information system operation, when a new staff member attempts to learn the details of the system, or when the system is transferred to another jurisdiction that the lack of adequate system documentation is felt. In some cases it may be virtually impossible to prepare the necessary documentation after key members of the design staff are no longer available to help in reconstructing the design details.

### 3. Resources for System Operation

The operation of a court information system requires the availability of a variety of resources. These resources include the personnel who operate the data processing equipment, the personnel who prepare and enter data, and the system analysts and applications programmers who prepare and maintain the system's software. Other required resources include the physical facility required to house and protect the system's equipment, the equipment itself, the forms, the support personnel required to maintain the equipment and to modify the manufacturer's-supplied operating software, and the communications facilities needed, in some systems, to connect the data processing equipment to remote terminal devices. A recognition of the need for funding required to provide these resources is critical if a court is to successfully plan for the effective on-going operations of its information system. How best to provide budgetary coverage for the needed resources is therefore a key issue in court information system installation. While some courts may find it possible to use their own court budgets as the mechanism to provide funding for the personnel and equipment required, it is likely that because of the

difficulties in achieving direct increases in court budgets, the financial resources required may be more easily obtained through the state,<sup>11</sup> county or municipal government data processing unit budgets. From whatever source such resources may be acquired, however, there is a need for making the funding source aware<sup>17</sup> of the project and its goals and of the long-term commitment required to insure both a successful implementation and continued operation at an effective level. Involved with this issue of funding are the financial contributions which may be made to the court information system development program by federal funds through the Law Enforcement Assistance Administration and the State Criminal Justice Planning Agency. Such funds have been made available to courts to develop and install a court information system, however, it is generally understood that since federal funding is not meant to substitute for local funding for any extended period, that funding from municipal, county or state sources must become available to maintain and operate the information system over the long run. Federal funding support may include the resources necessary to establish a data processing staff, prepare the necessary plans and procedures, cover the initial equipment and facility costs, prepare system documentation and conduct training courses for both operating and user personnel, but not for on-going system operation. This fact emphasizes the need for a comprehensive examination of the continuing requirement for system funding support as early in the system development process as possible.

The skills required for the operation of a court information system differ significantly from those personnel skills traditionally associated with court administration or operations. Training in systems analysis and design, computer programming, equipment operation, and communications technology are among the backgrounds required of personnel to support development of the information system and its operation. Many such technically qualified people will often command

salaries considerably in excess of the salary levels found in most courts. The potential disparity between the salaries of the information system group and an existing court organization can lead to difficulties in accomplishing system implementation. Difficulties of that sort and refusal by court personnel to accept the information system as an integral part of court operations can hinder the success of the system. It is important, therefore, that careful thought be given by the implementing organization to the problems, not only of the installation of the equipment and the changeover in procedures resulting from the introduction of a court information system, but also to the human problems<sup>23</sup> caused by the introduction of a new and potentially threatening system. It seems clear that unless using and operating personnel are both adequately trained and motivated to fully utilize and maintain the information system the likelihood for the long-term success of the system may be endangered.

Another issue limiting the optimal use of the court's resources in the operation of the information system is the limitation on such operations which may appear in, or be inferred from, statutes, court rules or long-standing court practices. Often such specific requirements exist concerning the manner in which court records are kept, the way court documents are prepared and how other traditional court activities are carried out. Those requirements, if rigidly applied, will stifle the effectiveness of the court information system through the inefficient use of the system's operating elements or personnel. The issue to be resolved by the court when faced with such limitations is how to overcome them through rule changes, legislation or through other less formal steps. Removing such barriers may require that a presiding justice or other rule making authority, interested in the court information system project, be willing to make the necessary rule changes to accommodate the system.

One potentially expensive issue to be resolved during the introduction of a court information system is the question of converting existing case files so as to be compatible with the data concerning newly-entered cases.<sup>9</sup> A large amount of scarce resources can easily be applied in the effort to prepare "old" court information for inclusion in the new information system. Expert opinion differs concerning how much of such files should be included in the system so as to facilitate processing with newly-acquired data. Some such conversion is obviously necessary so that a complete picture of the current calendar caseload can be made available. However, it has been recommended to courts that a detailed cost evaluation be made of the benefits to be achieved through conversion of any sizable quantity of existing files before a court embarks on a conversion effort.

D. Issues Concerning the Impact of a Court Information System on the Justice System

1. System Effectiveness

It has been pointed out<sup>12</sup> that *"experience indicates that computer systems provide data for the judges, but that it is their decisions that cut the backlog. Computers do not themselves reduce backlogs - they do nothing without human beings, and even a computing staff and their machine will not reduce the backlog except as advisors to the judge. Computers are not a panacea, but an aid"*. The impact of a court information system on the justice system is not a direct impact. Rarely do the judges, clerks, administrators and others who use the outputs of the system - the information - ever see the equipment which processes, stores and makes available the reports and other information forms produced by the information system. Therefore, it is the outputs of the information system - electronic terminal displays, printed summaries reports, indexes and listings, that court personnel use in managing, administering

and operating the court, including content, availability, reliability and response times, which provide the basis for the impact of a court information system on the court and its operations.

It is only through the effective use of the information the system makes available that there can be a positive impact on the criminal justice system itself. The issues raised in this connection are concerned with two aspects of court information system operation: the effectiveness of the system itself in achieving its internal objectives and the effectiveness of the court in using the system's products as an aid in meeting such goals as reducing delay, controlling the caseload, and optimizing the use of its resources.

A court information system can be effective in collecting, processing and retrieving data and yet not be of significant assistance to court personnel in achieving a positive impact on the justice system. This may occur, not because of the system design, but because the prerequisites for full system acceptance and utilization (i.e., careful statements of requirements, effective project organization, participation by all court agencies, adequate documentation and training, and strong support of the judiciary and court administrators) were not met. On the other hand, a poorly chosen, organized or designed court information system may consume an extraordinary amount of scarce resources. Such resources, if applied to other aspects of court operation as in facility improvement, salaries, judicial supporting staffs, or for additional judges might have made it possible for the court to conduct its business more effectively in the dispensation of justice. The use of those resources in support of an inefficient, inappropriate and ineffective information system may, in fact, have a negative effect on the justice system rather than the expected results.

In connection with the issue of the effective use of a court information system to achieve the court's objectives of improving the

administration of justice, it is important to consider the complex interaction of the various participants in the judicial process, both with each other and with the court as an institution. There is generally little agreement among the participants as to what the goals of effective judicial administration should be. One source has stated that the measurement of case delay in a court is, perhaps, the only measure of the quality of justice. If that statement, based on the traditional view that "*justice delayed is justice denied*", is accepted then one important goal of the court operation should be to minimize delay, using all available techniques, including a court information system, to reach that objective. On the other hand it has been noted<sup>12</sup> that "*Measurement of delay is one criterion for evaluating court operations, but to use it as the criterion is to reduce the quality of justice to a quantitative measure*". Delay can thus be recognized as at least one measurable quality in the evaluation of a court's operation. However, whether it, or any, single measure can express the totality of a court's role is, in the minds of most observers, very doubtful.

There is a general feeling among such observers that a well-managed court is a better court and therefore, if information provided to judges and to court administrators can be used by them to improve court management, such intermediate goals as case delay reduction can be achieved almost as a secondary effect. This could be accomplished through management<sup>24</sup> attention to overdue cases, excessive continuances, improved participant notifications, caseload analysis, efficient scheduling, judge assignment, and the other aspects of caseload management. It can be seen, therefore, that the issue of court information system effectiveness is not independent of the commitment to utilize the system's outputs for management, both by judges and court administrators.

## 2. Court Personnel and Processes

There can be an impact by a court information system on the court itself, aside from the production and use of its information product in improving court operations. This impact is concerned not only with the day-to-day functions and responsibilities of court operating personnel but also with the perceptions of the system by such personnel.

It has been pointed out<sup>25</sup> that the advent of a computer and its applications in the court environment will often instill negative reactions in the judges, lawyers and others involved in the court operations. The causes of the reactions will differ but it generally appears that the basis of the reaction is related to a personal fear, or at least a personal concern, with the unknown consequences flowing from the introduction of a complex technological mechanism in the traditionally static court milieu.

*"Much of the negative reaction toward computerization in the courts also is inspired by personal concerns over the disruption of familiar patterns of behavior. For example, judges customarily have felt that they enjoy substantial independence in the way in which they function. Some fear that computerization will provide a means for reviewing their activities and performance and for forcing them to work harder, faster, or longer."<sup>25</sup> In addition, the fear of personnel displacement, or "being replaced by a computer", is a strong deterrent to full acceptance of, and cooperation with, the implementation of a court information system. These reactions can be minimized through adequate communication with those involved in, or affected by, the system so that there is a common understanding of*

the purposes of the installation and an appreciation of the nature and benefits to all levels of court personnel of electronic information processing. For instance, it should be pointed out that although manual clerical processing may be reduced through the assistance provided by the computer, there is more time to exercise functions requiring independent judgment<sup>12</sup> and, therefore, the system results in a more intelligent use of human beings.

The requirement for a rigorous adherence to system standards in the collection and entry of data into the information system also impacts upon court personnel. Formal definitions of system terms involving caseload activities such as arraignment, motions, hearings, dispositions, continuances require some limitation on their traditional and somewhat ambiguous use. These rigorous definitions taken together with the procedural requirements of system operation, including the use of standard forms and reports, may restrict the otherwise independent court operations usually found in most courthouses. The extent to which a court is willing to find itself under the constraints imposed by the procedural requirements of its own information system is one that may be easily overlooked in the first rush to improve the operating effectiveness of a court.<sup>26</sup> Such constraints include the organizational rigidity which may be imposed by the court administrator in order to provide statistical and management information. That type of rigidity may, in turn, make the process of court improvement through reorganization<sup>9</sup> more difficult. It is an example of the "tail wagging the dog" syndrome.

## 3. Quality of Justice

The issue concerned with the extent to which a court information system affects the quality of justice is an extremely difficult one to specify in concrete terms. One's concept of "quality of justice" is, many times, dependent on the role one finds himself

in the judicial process. The unsuccessful litigant, the convicted offender, the losing attorney may all view the same process through eyes that differ from the prosecutor and the other more successful participants in the court activity. In the long run it is the judge who must assure that the standards for the quality of justice in the court have been met and that justice is truly dispensed with protection for the legitimate interest of all parties concerned without regard to the procedural limitations of the court information system. The fear of "assembly line justice" or "efficiency for efficiency's sake" caused by the introduction of a court information system can only become real because of an abdication by the court of its responsibility for the standards for quality justice. The issue in this area to be faced by the court is to what extent it intends to maintain its own standards of justice in view of the potential misuse of information requirements and management assistance resulting from the implementation of a court information system.

## APPENDIXES

APPENDIX A - Bounding the Court Information System Universe

APPENDIX B - List of Persons Interviewed

## APPENDIX A

### BOUNDING THE COURT INFORMATION SYSTEM UNIVERSE

#### A. Identification of Candidate Systems

An extensive literature search was undertaken by the project team to identify those existing court information systems which were candidates for inclusion in the listing of systems selected for consideration as part of the Phase I evaluation. Many of the documents used in the search are shown in the bibliography of this report. Additional sources of data included the limited listings available from LEAA covering both discretionary and block-funded court information system projects. Personal contacts with experts in the field of court administration provided a third source of candidate court information systems. Using their knowledge and experience such experts were able to suggest courts to be included in the study. A final source of data was from ongoing parallel information systems projects including:

- The inventory of criminal justice information systems originally published in 1972 and now being updated by Brandon Systems, Inc. for the Law Enforcement Assistance Administration. (This latter project was not sufficiently far along to provide current data.)
- The research into court scheduling computer programs being conducted by the Institute for Law and Social Research under a grant from the National Science Foundation. (This project was engaged in producing a first set of reports and was also unable to provide detailed research information for the Phase I evaluation.)

- The study of Juvenile Court information systems being performed by the National Council of Juvenile Court Judges for the Law Enforcement Assistance Administration. (To eliminate redundancy and use the project resources effectively the project team decided to exclude juvenile court information systems from the universe to be considered for the Phase I evaluation.)
- A study of state court information systems conducted by The Institute for Judicial Administration under funding provided by SEARCH Group Inc. (The draft<sup>3</sup> and later final report<sup>5</sup> of this project provided substantial data on both state-level and trial court information systems.)

As a result of an analysis of the information available from all of these sources, an initial list was compiled of 111 courts in which there appeared to be an information system currently operational.

#### B. Further Refinements of the Court Information System Universe

Following the initial listing of operational information systems three additional criteria were established to further refine the list. These criteria required:

1. That the information system support trial court operations. That is, the system should not exclusively support an appellate court or central court administration but should assist in the case operations of the courts with the most significant problems, the trial courts. Therefore, the court information system must serve a court in which cases are processed through to trial or other non-appellate final dispositions.

2. That the court information system must support both operational and management functions. The mere use of a computer to perform certain data processing within the court did not solely qualify a system as a court information system unless the information system provided management reports as well. Those information systems which concentrate solely either on operations or management, to the exclusion of the other function, were eliminated from consideration. For example, systems which support only operations, such as traffic violations processing, and produce no exception reports and only limited statistical summaries were excluded since they were performing virtually only as "automatic typewriters". On the other hand, systems which provide management with exception reports and statistics, but which are not based on operational data (e.g., systems which relied upon only clerical tabulations) were also excluded.
3. That only court information systems that are currently operational have been considered for inclusion as a candidate system. Thus, systems in planning, development, test, or parallel test operation were not considered. Since the next task in the Phase I evaluation project is to visit representative courts employing court information systems in an attempt to determine whether or not the system's effectiveness and its impact upon the court and the justice system can be evaluated, it was clear that only fully operational information systems be considered. In addition, where an information system had been operational for a very short period of time (e.g., a matter of a few months), and there was not sufficient time for the system to reach operational stability, it was also excluded from consideration.

In order to test the initial list of 111 court information system projects against these three criteria, letters were sent to the National Institute of Law Enforcement and Criminal Justice liaison personnel in the State Planning Agency of every state represented on the list of court systems. Through the cooperation of the Systems Development Office of LEAA a presentation was also made to the LEAA Regional Office Systems specialists at their September round-table meeting in New Orleans. Subsequently, each of the systems specialists were contacted by phone to determine whether the list gleaned from the literature and analysis was complete and whether the courts appearing on it did, in fact, satisfy the three criteria. Since most of a regional LEAA system specialist's work is concentrated on current or planned projects, they often referred the project team to people at the State Planning Agency (i.e., the state-level LEAA funding agency) or to state-level court administrators. Such state-level personnel were then, in turn, contacted by telephone regarding the completeness of the list and to help evaluate that state's projects against the three criteria mentioned above. (A list of persons contacted during this phase is presented in Appendix B.)

As a result of this effort a number of systems were eliminated from the universe to be considered, while a few were added, resulting in a listing of some 65 trial courts with existing information systems serving both operations and management.

### C. Contacting Individual Courts

Representatives of each court remaining on the list in which an information system reportedly existed, were then contacted and interviewed by phone using a structured interview based on the questionnaire shown in Figure A-1 which was employed to determine the key characteristics of the information system. Again, there was some elimination of court systems which did not meet the three basic

TABLE A-1  
COURT INFORMATION SYSTEM TELEPHONE SURVEY

Court:

Person(s) Contacted:

Position:

Phone:

1. Does Information System Support Trial Court(s)?  Y  N

Number of Courts Served  
 Upper  Civil  Criminal  
 Lower  Civil  Criminal  
 Juvenile  
 Traffic

2. SIZE:  Number of Judges  Population Served

Annual Caseload  
 Where Case = Indictment  
 Where Case = Defendant

3. Information System Name: \_\_\_\_\_

Date Operational (in approximately its current form) \_\_\_\_\_  
 Any D.P. Before?  original date \_\_\_\_\_ (Approx.)

4. Computer Manufacturer & Model: \_\_\_\_\_

Court-Owned/Leased:  Y  N Shared:  Y  N with County \_\_\_\_\_  
 with \_\_\_\_\_

Software: \_\_\_\_\_

Staff Size (D.P.) \_\_\_\_\_  
 (Admin.) \_\_\_\_\_

5. Any Descriptive Material Available?

6. Any Benefits Analysis or Evaluation Performed (e.g., Cost Savings, Time Reduced, etc.) - (obtain copy).

7. Source of Development Funds:  LEAA  County  State  City  
 (Approx. \$ or %)

TABLE A-1 (concluded)

8. Source of Operating Funds:  LEAA  County  State  City

9. Functions Performed (Caseflow Management):

What Operational Reports does it Produce?

- Calendars/Schedules  Next Day  Next Month
- Notices for Witnesses; Defendants; Plaintiff
- Indexes  On-Line  Lists
- Case Status  On-Line  Lists
- Attorney Assignment
- Courtroom Assignment
- Judge Assignment
- Support/Assist/Provide Conflict-Free Schedule
- Docketing

What Management Reports does it Produce? (i.e., Exception Reports)

- Oldest Cases (Aged)
- Cases behind Schedule
- Conflicts (Apparent)
- Excess Workload (Attorney, Judge, etc.)

What Statistical Reports does it Produce?

- Caseload/Backlog
- Time to Completion, etc.
- Do any of these require special input?  Y  N
- Other
- Disposition per Prosecutor; per Judge

10. Other Functions:

- Jury Management/Selection
- Fines, Support Payment & Bail
- Accounting & Budgeting
- Personnel
- Parking Ticket Processing
- Interface with/Maintain Criminal Histories (including Disposition Reporting)
- Warrant/Summons Control
- Prisoner Inventory
- Probation Support

Contacted by: \_\_\_\_\_ Date \_\_\_\_\_

criteria, usually because the information system was either not yet fully operational or is only now in the process of becoming operational.

As a result of this effort, the number of information systems in the court information system universe dropped to 47. Those courts are listed in Table A-2. While every attempt has been made to obtain data which is consistent and complete, it is expected that some errors or oversights may have crept into this list. Most respondents were extremely anxious to help, but did not always have complete data available. Where possible the listing will be refined during field visits or through follow-up telephone interviews. The project team believes this listing of the members of the universe of court information systems to be the most accurate compilation of operating court information systems currently available. However, the reader is cautioned to: (1) be sure he understands the criteria used to narrow the universe and (2) to be aware that some slight inconsistencies may exist.

From this list individual courts will be selected for in-depth site surveys. Among the factors used in the site survey selection process are: (1) source of development funds, (2) data processing center operation, (3) population served, (4) court locations served, (5) development of application programs, (6) length of time the court information system has been operational, (7) previous data processing experience, (8) computer hardware configuration, (9) availability of evaluation data, and (10) availability of documentation.

The data gathered from each court site survey will be used, together with the data elicited during the knowledge gathering task, to determine (1) the process by which the information system was conceived, designed and implemented; (2) the actual flow of information through the system; (3) the impact of the system on the users and the

justice system; and (4) the potential for developing evaluation standards for measuring the effectiveness and impact of such systems.

TABLE A-2 CATEGORY DEFINITIONS

COURT INFORMATION SYSTEM LOCATION

The official name of the court served by the information system and its location.

POPULATION SERVED

The population (expressed in thousands) of the area served by the court information system.

ANNUAL SYSTEM CASELOAD

The annual number of cases entered into the court information system. (In most cases the figures are for 1974 caseloads.) If the system supports only criminal cases, only criminal caseload figures are recorded. If the system supports both criminal and civil cases, caseload figures for both are combined. Only traffic cases are recorded separately.

COURT LEVEL SERVICED

A checkmark indicates whether the court information system supports an upper court (general jurisdiction), lower court (limited jurisdiction) or both.

TIME CIS OPERATIONAL

The number of years the earliest part of the present court information system has been operational.

CASE TYPES SUPPORTED

A checkmark indicates that within either the upper or lower court or both, the court information system supports criminal, civil, juvenile and/or traffic cases.

### MAJOR SOURCES OF DEVELOPMENT FUNDS

A checkmark indicates the major source of funding for development of the court information system.

### DATA PROCESSING CENTER OPERATION

A checkmark indicates whether the court itself, or some other organization operates the computer on which the court information system operates. Typically the other organization would be a county data processing bureau. However, some courts use universities, criminal justice computers, or even a commercial data processing bureau.

### ON-LINE CAPABILITY

A checkmark indicates that the court information system has some on-line components (data entry and/or inquiry response).

### CASEFLOW INFORMATION SYSTEM APPLICATIONS

A checkmark indicates what type of caseflow applications the court information system supports: Operational, Management, or Statistical.

### OTHER SYSTEM APPLICATIONS

A checkmark indicates other court information system applications supported: Jury Management/Selection, Fines/Support Payment/Bail, or Other.

TABLE A-2  
COURT INFORMATION SYSTEM (CIS) SURVEY

Court Information System Location	Population Served (thousands)	Annual System Caseload	Court Level Served	Time CIS Operational (years)	Case Types Supported	Major Sources of Development Funds	Data Processing Center Operation	On-Line Capability (Entry and/or Inquiry)	Case Flow Information System Applications	Other System Applications
ARIZONA Maricopa County, Phoenix	1,300	7,000	UPPER X	2	CRIMINAL X	LEAA X	COURT X	X	OPERATIONAL X	JURY X
CALIFORNIA Alameda County Superior Oakland Oakland-Piedmont Municipal (Alameda County)	1,073 400 140,000 Traffic	2,500 35,000 140,000 Traffic	X X X	2 2 6	X X X	X X X	Manual System X X	X X	X X X	X X X
Los Angeles County Superior Los Angeles Los Angeles County Municipal Los Angeles	7,000 2,800 800,000 Traffic	158,200 70,000 800,000 Traffic	X X X	4 5	X X	X X	X X	X X	X X	X X
San Diego Superior San Diego	1,358	45,000	X	3	CRIMINAL X	X	X	X	X	X
Santa Clara County Superior San Jose	1,065	2,500	X	3	CRIMINAL X	X	X	X	X	X
San Jose Municipal (Santa Clara County)	88	25,000	X	3	CRIMINAL X	X	X	X	X	X
San Francisco Superior San Francisco Municipal	800 800	82,000 125,000 Traffic	X X	1 1	X X	X X	X X	X X	X X	X X
Stockton Municipal (San Joaquin County)	107	40,000 Traffic	X	2	X	X	X	X	X	X
COLORADO Colorado State Judicial Information System, Denver	2,207		X	3	CRIMINAL X	X	X	X	X	X
CONNECTICUT Connecticut State Court System, Hartford	3,000	30,000	X	5	CRIMINAL X	X	X	X	X	X
DISTRICT OF COLUMBIA Superior Court District Court	760 760	288,500 3,000	X X	4 4	CRIMINAL X X	X X	X X	X X	OPERATIONAL X X	JURY X X



TABLE A-2  
CIS SURVEY (Continued)

Court Information System Location	Population Served (thousands)	Annual System Caseload	Court Level Served	Time CIS Operational (years)	Case Types Supported	Major Sources of Development Funds	Data Processing Center Operation	On-Line Capability (Entry and/or Inquiry)	Case Flow Information System Applications	Other System Applications
TEXAS Bexar County, San Antonio Dallas County, Dallas El Paso County, El Paso Harris County, Houston Tarrant County, Fort Worth	800	20,000	UPPER X LOWER X	2	CRIMINAL X CIVIL X JUVENILE X TRAFFIC X	LEAA X STATE X COUNTY X OTHER X	COURT STATE X COUNTY X OTHER X	X X X X X	OPERATIONAL X MANAGEMENT X STATISTICAL X	JURY X FINES X OTHER X
	1,500	46,000	X X X X	2	X X X X	X X X X	X X X X	X X X X	X X X X	X X X X
	400	8,000	X X X X	3	X X X X	X X X X	X X X X	X X X X	X X X X	X X X X
	2,098	60,000	X X X X	4	X X X X	X X X X	X X X X	X X X X	X X X X	X X X X
	770	20,000	X X X X	2	X X X X	X X X X	X X X X	X X X X	X X X X	X X X X

APPENDIX B

LEAA and State Planning Agency Personnel Interviewed in  
the Determination of the Court Information System Universe

REGION I

Mr. Robert Harrow  
Rhode Island Court Administrator

Mr. Alfred Zappola  
LEAA Regional Office

REGION II

Mr. Myron Cohon  
LEAA Regional Office

Mr. George Shikora  
New Jersey Courts

Mrs. Susan Johnson  
New York Courts

Ms. Iris Medina  
Puerto Rico, SPA

REGION III

Mr. Herbert Koppel  
LEAA Regional Office

Mr. Joseph Riggione  
Pennsylvania Task Force on  
Criminal Justice Information

Mr. Peter Lally  
Maryland, SPA

Mr. Raymond Hogue  
Virginia, SPA

Mr. Michael Lettre  
Maryland, SPA

Mr. Boylan  
Pennsylvania, SPA

Mr. Michael Neiberding  
Maryland Court Administrator

REGION IV

Mr. Donald Manson  
LEAA Regional Office

Mr. Kenneth Palmer  
Florida Court Administrator's  
Office

Mr. Harold Greene  
Florida, SPA

Ms. Cheryl Purvis  
Georgia, SPA

REGION V

Mr. Francis Sass  
LEAA Regional Office

Mr. Walter Walker  
Indiana, SPA

LEAA and State Planning Agency Personnel Interviewed (continued)

REGION V (continued)

Mr. James Wogaman  
Ohio, SPA

Mr. Stephen Finn  
Minnesota, SPA

Mr. David Coldren  
Illinois, SPA

Mr. Henry Verkiak  
Michigan, SPA

REGION VI

Mr. Roger Crutchfield  
LEAA Regional Office

Ms. Roberta Sklower  
New Mexico, SPA

Mr. James Martin  
Louisiana, SPA

Mr. Robert Logan  
Texas, SPA

Mr. Charles Wood  
Oklahoma, SPA

Mr. Thomas Buchanan  
Texas, SPA (Dallas Branch)

REGION VII

Mr. Berndt Fraser  
LEAA Regional Office

Mr. James Harrison  
Nebraska, SPA

Mr. Stephen Claggett  
Missouri, SPA

REGION VIII

Mr. John Jones  
LEAA Regional Office

REGION IX

Mr. Arthur H. Fuldner  
LEAA Regional Office

Mr. William Rietdorf  
California Judicial Council

Mr. William Braybroch  
Arizona, SPA

LEAA and State Planning Agency Personnel Interviewed (concluded)

REGION X

Mr. Robert Willstadter  
LEAA Regional Office

Mr. James Cleghorn  
Washington, SPA

Mr. Raymond Mayhew  
Oregon State Judicial Information  
System

Court Personnel Interviewed by Telephone

ARIZONA

Mr. Gordan Allison  
Court Administrator  
Maricopa County

Ms. Edna Blank  
Court Administrator  
Pima County

CALIFORNIA

Mr. Andrew Schultz  
Court Administrator  
Alameda County Superior Court

Mr. Clinton H. Moore  
Chief of Data Processing  
Los Angeles County  
Municipal Court

Mr. George Dicky  
Clerk & Administrator  
Oakland-Piedmont  
Municipal Court

Mr. Jess Osuna  
Court Administrator  
San Diego County  
Superior Court

Mr. Frank Zolin  
Executive Officer  
Los Angeles County Superior Court

Mr. Paul Dato  
Clerk  
San Diego Municipal Court

Mr. John Kazabowski  
Court Executive Officer  
Santa Clara County  
Superior Court

Mr. Joseph Speciale  
Executive Officer  
San Jose Municipal Court

Mr. George Holmes  
Executive Administrative Officer  
San Francisco Municipal Court

Mr. Michael Kurry  
Stocton Municipal Court

Mr. John Good  
Court Executive  
Ventura Municipal Court

Mr. Alan Slater  
Ass't. Court Administrator  
Orange County Superior Court

COLORADO

Mr. Thomas J. Lehmer  
Director of Management & Budget  
Colorado Judicial Department

Court Personnel Interviewed by Telephone (continued)

CONNECTICUT

Mr. Edward Miller  
Data Processing Service Group  
Court Administrator Office

DISTRICT OF COLUMBIA

Mr. Stuart Mitchell  
Administrative Division  
Superior Court

Ms. Carol Brown  
Data Processing Supervisor  
District Court

FLORIDA

Mr. Charles Kaufflin  
Court Data Processing Coordinator  
Broward County

Mr. Alan Stang  
Court Program Development  
Coordinator  
Dade County

Mr. Wendall Martin  
Mr. Clarence Wells  
Clerks Office  
Duval County

Ms. Julia Trogden  
Vice Chief Deputy Clerk  
Orange County Clerk's Office

Mr. Daniel Sutton  
Director of Information Systems  
County Clerk's Office  
Hillsborough County

Mr. Louis Jones  
Director of Data Processing  
Pinellas County

ILLINOIS

Mr. Randall Murphy, Assistant  
Director  
Department of Management Services  
Lake County

Mr. Walter Gribben  
Supreme Court Committee on  
Criminal Justice Programs  
Chicago

Ms. Marcia Rubenstein  
Illinois Law Enforcement  
Commission  
Chicago

Mr. Peter Deuel  
Associate Clerk  
Cook County Circuit Court

LOUISIANA

Mr. Francis Spellman  
Data Processing Manager  
City of Lafayette

Court Personnel Interviewed by Telephone (continued)

MARYLAND

Mr. Michael Neiberding  
State Court Administrator

MICHIGAN

Mr. Murray Klerkx  
Deputy Director  
Judicial Data Processing Center  
Detroit

MINNESOTA

Mr. Jack Provo  
District Court Administrator  
Hennepin County

Mr. Gordan Griller  
Assistant County Court Administrator  
Hennipin County

Mr. Richard Klein  
State Court Administrator

MISSOURI

Mr. Robert Kramer  
Director of Court Computer Operations

Mr. Robert Perry  
Circuit Judge's Officer  
Boone County

Mr. Ronald Connelison  
Manager of Regional Court Info. Sys.  
St. Louis

Court Personnel Interviewed by Telephone (continued)

NEW JERSEY

Mrs. Jacobs  
Court Administrator  
Bergen County

Mr. William Shay  
Data Processing Supervisor  
Hudson County

Mr. Ronald Parker  
Court Administrator  
Passaic County

NEW MEXICO

Mr. Duane Brochuis  
County Data Processing Manager  
Albuquerque

NEW YORK

Mr. Joseph Goldstein  
Court Administrator  
Nassau County

Mr. Robert Gamble  
Director of Court Management Information Systems  
Camden County

Dr. James Winston  
Court Administrator  
Middlesex County

Mr. John Seaman  
Union County

Mr. John Jenhings  
Director of Administrative Analysis  
New York City Courts

NEBRASKA

Ms. Joan Lubischer  
Systems Group  
Douglas County

OHIO

Mr. Roger McKensie  
Assistant Court Administrator  
Hamilton County

Mr. Francis L. Bremson  
Project Director  
Court Management Project  
Cuyahoga County

Mr. Duane Hays  
Assignment Commissioner  
Franklin County Hall of Justice

Court Personnel Interviewed by Telephone (concluded)

PENNSYLVANIA

Mr. Charles Starrett  
Court Administrator  
Allegheny County

Mr. Clifford Kirsch  
Court Administrator  
Beaver County

Mr. Larry Polansky  
Chief Deputy Court Administrator  
Philadelphia Court of Common  
Pleas

Ms. Margaret Freeman  
Data Processing Coordinator  
Burkes County

TEXAS

Mr. Sidney Frost  
Director of Court Systems Division  
Harris County  
1305 Prairie Room 313  
Houston

Mr. Charles Collier  
Director of Information  
Dallas County

Mr. William Roberts  
Director of Information Systems  
Tarrant County  
Forth Worth

Mr. Raymond Zitur  
Director of Data Processing  
El Paso County  
City Court Building  
El Paso

Mr. Jerry Evans  
Assistant Director of Information  
Dallas County

Mr. David Dartez  
Judicial Systems Manager  
Bexar County  
San Antonio

PUERTO RICO

Mr. Jan Samsel  
State Planning Agency

Partial Listing of Those Persons who Contributed to the Identifica-  
tion of the Fundamental Issues Concerning Court Information Systems:

Mr. Larry Polansky  
Chief Deputy Court Administrator  
Common Pleas Court of Philadelphia

Honorable Thomas J. Stovall, Jr.  
Judge, 129th District of Texas

Mr. Harvey E. Solomon  
Executive Director  
Institute for Court Management

Mr. J. Michael Greenwood  
Senior Staff Associate  
National Center for State Courts

Mr. Ernest Friesen  
Lawyer  
Littleton, Colorado

Dean Ernest J. Watts  
National College of the State  
Judiciary

Mr. Larry Boxerman  
National Council of Juvenile  
Court Judge

Mr. Joseph Trotter  
American University Law School  
Criminal Courts Technical As-  
sistance Project

Mr. Thomas F. Lane  
Institute for Law and Social  
Research

Mr. David Weinstein  
SEARCH State Judicial Infor-  
mation System Project

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