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HOW THE COMPUTER CAN AID
IN KEEPING PEOPLE OUT OF THE "SYSTEM"

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ABSTRACT

A mental health administrator may typically reject institutional information systems for the following reasons: "What I need to know is how people are being *removed from*, and *kept out* of the system, as well as how they are being *put into*, and *kept within* the system." It is the conjecture of this paper that most existing Criminal Justice Information Systems measure only how people are entered into and tracked within the Criminal Justice System and that these information systems ignore the basic needs of society by not presenting the available governmental and societal alternatives aimed at keeping people out of the system. These alternatives may be appropriate at every stage of the criminal justice decision making process. -

The authors of this paper contend that justice information systems can be developed to improve our society through the development of information systems that adequately present all available alternatives to criminal justice decision makers at each point in the complex process of decision making about individuals.

It can be seen that a new era for a more responsive approach to information systems design would include operational and statistical applications that:

- Demonstrate alternatives at each operational decision point in the system.
- Provide statistics that illustrate the degree to which alternatives to the usual criminal justice proceedings are utilized.

We are now on the threshold of being able to trace an individual from his first arrest to final correction. An area of future interest in automation includes data systems that allow the Criminal Justice System to put into practice alternatives aimed at meeting the needs of government, society, and the individual. There is a need to avoid the automatic application of criminal justice machinery based on the naive approach of arrest-conviction-incarceration-and recidivism.

INTRODUCTION AND THEORY

Criminal Justice Information Systems (CJIS) are a subset of a system of justice, which in turn is a subset of the system of social order and society. An Administrator of the Justice System must ensure that information system designers consider the role of CJIS within the total system of society so that it does not drive the Justice System in the wrong direction.

One method for ensuring comprehensiveness of scope is the approach of applied mathematical logic aimed toward problem solving. The logic includes consideration of extremes so that boundaries are clearly understood and relevant within the context of larger systems. The applied mathematician may approach a problem according to the following procedure:

Consider the integral symbology:

$$\int_A^B$$

Where "A" implies understanding at one extreme.
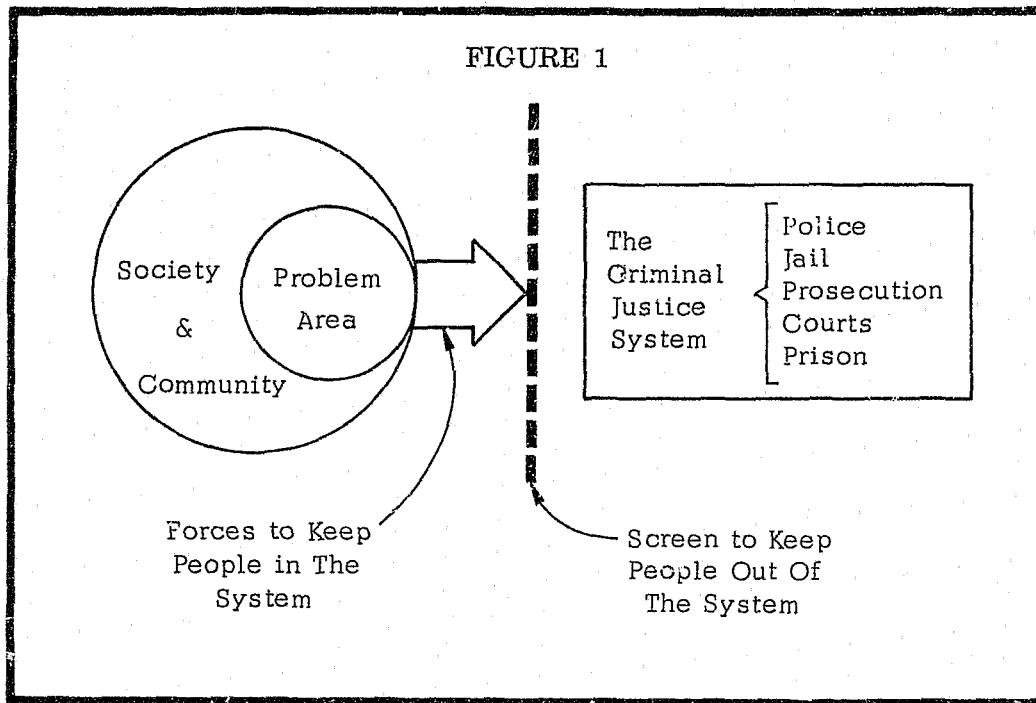"B" implies understanding at the other extreme.
"$\int$" implies the sum of understanding of all the infinitismal parts between each extreme.

When developing a Criminal Justice Information System the focus may be on two boundary problem areas:

Problem "A" — information designed to keep people in the system of justice (to apprehend, prosecute, track, and remove individuals from society).

Problem "B" — information designed to keep people out of the Justice System (to prevent crimes or their recurrence, and to keep individuals free and within society).

Figure 1 is a model illustrating both viewpoints. The illustration indicates that the enlightened administrator of justice seeks to understand how the Justice System is operating to keep individuals out, as well as in the system.

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FIGURE 1

The
Criminal
Justice
System
{ Police
Jail
Prosecution
Courts
Prison

Society
&
Community

Problem
Area

Forces to Keep
People in The
System

Screen to Keep
People Out Of
The System

MODEL TO PROVIDE TWO CLASSES OF INFORMATION

The Justice Administrator needs to know how the system is keeping people in society as well as it is keeping people in the system.

Once the boundary conditions are established, the systems analysts may approach the problem of understanding the sum of all the parts between the extremes (i.e., the $\int$), by conceptualizing and developing information systems that include the methods of feedback control. During conceptual information design stages, the analyst maintains objectivity regarding technology. The analyst does not make premature conclusions as to whether or not particular methods such as automation through the use of computers or other technologies should be used. The basic concern is toward improving *information content and flow* so that the system served by the information system can maintain its proper orientation toward higher goals.

THE JUSTICE INFORMATION SYSTEM VIEWED AS A FEEDBACK MECHANISM

A Criminal Justice Information System (CJIS) can be viewed as an information system that provides for the feedback and the continuity of information flow to allow results of programs affecting individuals and society to be measured, and so that program adjustments can be based on facts rather than intuition. Figures 2 and 3 illustrate the feedback concept involving the societal environment with its problem areas, and the administration of Justice Systems need for PERCEPTION, DECI-
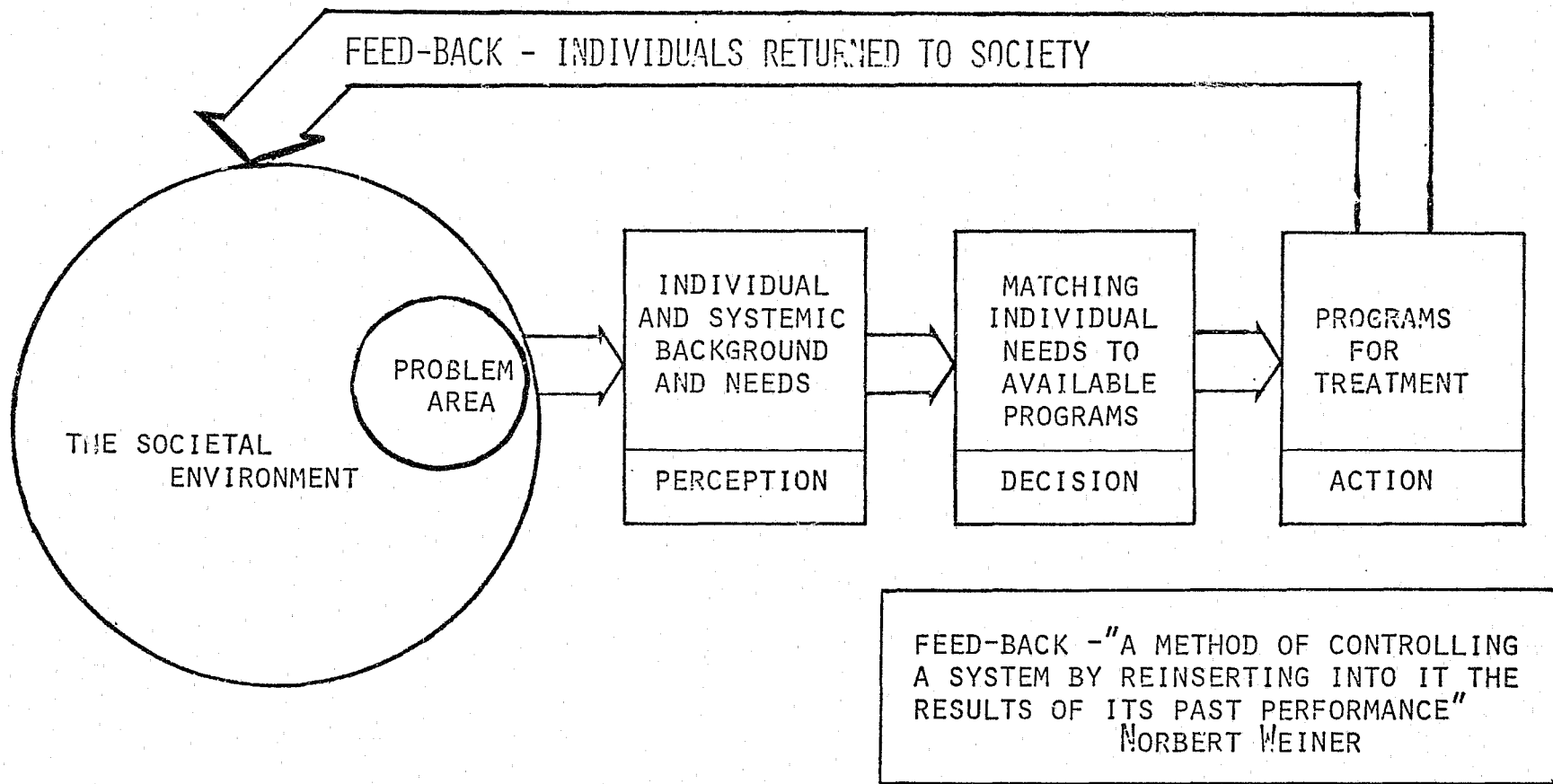
SION, ACTION and FEEDBACK mechanisms.

PERCEPTION mechanisms provide informational inputs that allow the understanding of causes of crime nd the gathering of facts for decision and action. In the development of facts regarding causes of crime, an objective administrator must not limit his focus to whether or not an individual adheres to regulations and laws. He must continuously look for deeper understanding of causes which may include the questioning of regulations and laws, and making recommendations for their change.

For DECISION making, several conflicting requirements must be faced in a society that cherishes individual freedom—for example, the desire to protect society from crime versus the desire to protect the freedom of individuals. In order to resolve conflicts, it is important that all rational alternatives consistent with higher goals of society and needs of the individual be presented to decision makers.
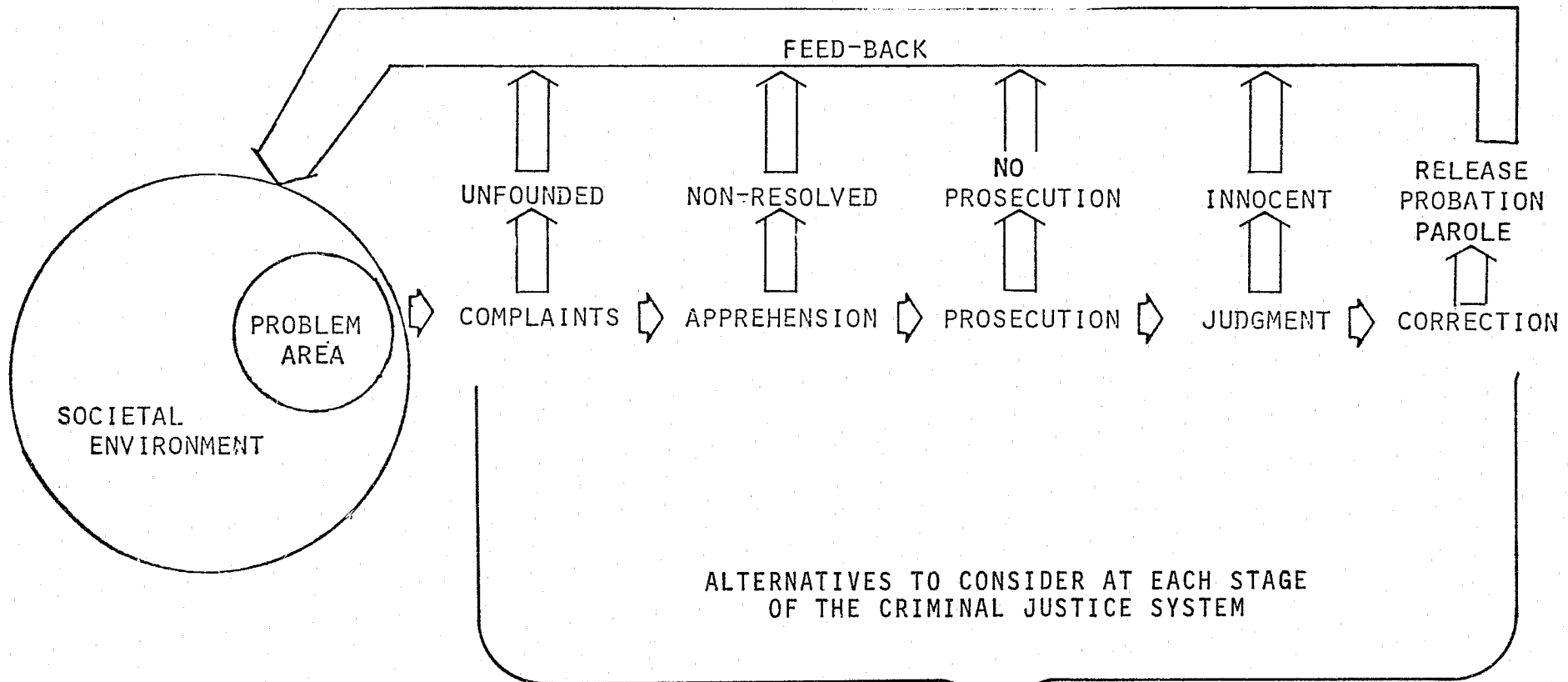
In the Justice System, there are ACTION mechanisms that operate to provide and apply resources to prevent crime and recidivism and allow individual improvements. Innovative administrators of justice will consider the application of *resources outside of the criminal justice system* as well as resources under his direct control.

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FEED-BACK - INDIVIDUALS RETURNED TO SOCIETY

THE SOCIETAL ENVIRONMENT

PROBLEM AREA

INDIVIDUAL AND SYSTEMIC BACKGROUND AND NEEDS	MATCHING INDIVIDUAL NEEDS TO AVAILABLE PROGRAMS	PROGRAMS FOR TREATMENT
PERCEPTION	DECISION	ACTION

FEED-BACK -"A METHOD OF CONTROLLING
A SYSTEM BY REINSERTING INTO IT THE
RESULTS OF ITS PAST PERFORMANCE"
NORBERT WEINER

THE JUSTICE INFORMATION SYSTEM AS A FEEDBACK PROCESS

FIGURE 2

FEED-BACK

UNFOUNDED   NON-RESOLVED   NO PROSECUTION   INNOCENT   RELEASE PROBATION PAROLE

COMPLAINTS ▷ APPREHENSION ▷ PROSECUTION ▷ JUDGMENT ▷ CORRECTION

SOCIETAL ENVIRONMENT

PROBLEM AREA

ALTERNATIVES TO CONSIDER AT EACH STAGE
OF THE CRIMINAL JUSTICE SYSTEM

TREATMENT MODES	
JUVENILES	ADULTS
DETENTION, PROBATION, PAROLE, PROGRAMS FOR YOUTH AND CHIL- DREN, FAMILY HELP, PSYCHOLOGI- CAL, PSYCHIATRIC, HALFWAY HOUSES, FOSTER HOMES, ...	INCARCERATION, PROBATION, PAROLE WITH RELEASE, HALFWAY HOUSES, PSYCHOLOGICAL, PSYCHIATRIC, FAMILY HELP, ...

ONE PURPOSE OF
FEEDBACK IS TO
MEASURE HOW THE
SYSTEM KEEPS
PEOPLE OUT OF
INSTITUTIONS AS
WELL AS IN
INSTITUTIONS

RELATIONSHIP OF RESOURCES AND PROCEDURES
TO THE CRIMINAL JUSTICE SYSTEM

In considering FEEDBACK, the entities that flow through the system are people and they eventually return to society for better or worse. Feedback is a continuous phenomenon and the performance of the *system* and its effects on individuals must be considered. As time goes on, the measure of the effect of feedback on reduction or increase of crime and crime-related problem areas in the environment can be perceived by alert perception mechanisms of the causes of crimes.

PRESENT SYSTEMS AND THE NEED FOR IMPROVEMENT

In many existing information systems (including Project SEARCH) the class of data regarding success or failure of how the system of justice had performed is almost completely lacking. This is especially true for data on institutional performance aimed at keeping people out of the system. Summarized information regarding individuals such as that illustrated in Project SEARCH demonstrations is basically pointer data which generally lacks the detail and comprehensiveness necessary for decision making about individuals and improvement of the system. This lack combined with the usual heavy work-load burdens on criminal justice decision makers may create a situation where there is a danger that this data may be used in a manner that is inappropriate.

In following paragraphs, the needs of major components of the Criminal Justice System are discussed with only hints as to how *accurate, timely and comprehensive information* can help alleviate basic problems. Candidate applications of information systems technology are suggested. The list is not to be considered complete.

Extensive research is required in order to develop a more comprehensive and fair approach to the usual "stick 'em all in jail" philosophy inherent in many Criminal Justice Information Systems.

AREAS FOR GENERAL IMPROVEMENT IN THE CRIMINAL JUSTICE SYSTEM

There are administrative similarities between the treatment of the mentally ill and the treatment of persons who may have committed crimes (offenders). This is important to administration of justice planners as history indicates that improvements in mental health treatment models often precede the treatment modes for offenders of social rules.

In the area of mental health, there has been a massive change of policy direction where the aim is toward treatment of the individual within his com-

munity rather than within an institutional setting. In many states, the old, architecturally massive and oppressive, rural institutional settings for mental health treatment are being closed or are being relegated to limited scope of utilization.

To a limited extent, this movement toward community treatment and services is happening in the area of criminal justice and the more modern methods of treatment of offenders encompass this approach. However, considerable resistance has been encountered possibly due to our present national focus on "law and order" and on the widely held notion that our society needs massive prisons and jails of archaic architecture to deter crime. This viewpoint remains in spite of the fact that most correctional administrators agree that for 80% to 95% of those incarcerated, the type of treatment that these institutions can provide is not relevant to the needs of individuals.

Although this paper is concerned with both aspects of the Justice System: Problem A — how people are kept in the system, and Problem B — how people are kept out of the system, the basic focus is toward Problem B where 80% to 95% of the individuals in institutions are *not being provided with proper treatment or services aimed toward improvement of the individual or society.*

Some of the general areas for improvement are well recognized by criminal justice administrators. They include:

- Avoidance of differential selection
- Treatment of the mentally ill
- Treatment of juveniles
- Alcoholism
- Victimless crimes
- Incarceration for family support

An important area for improvement includes the avoidance of the evils of selection for arrest and prosecution of individuals because of their social status. (See publication by Nathan Goldman, *"The Differential Selection of Juvenile Offenders for Court Appearance",* NCCD-1963.) We suspect that the more recent programs for diverting youth (including those over the age of 18) from the criminal justice system did not evolve from reaction to differential selection. They probably evolved from the reaction to the volume of middle class youth involved with the smoking and distribution of "pot" which became so severe that the "mayor's son" was arrested. Diverting individuals from the criminal justice system now seems fair treatment, and it has the advantage of avoiding the stigmatizing of youth with labels of criminal records.

Information systems that point out differential selection may lead decision makers to greater understanding of cause of crime and allow them to improve their methods of dealing with specific cases.

The criminal justice system should include reporting systems that enhance referral to and transfer of responsibilities of treatment for mentally ill to mental health agencies. The obvious categories of mental health responsibilities that should be diverted from the criminal justice system include:

- Mentally ill – no crime involved
- Mentally ill – judged criminally insane
- Mentally ill in jails and prison population where an offense is not connected to the reason for incarceration.

The administration of justice must include recognition of special rules and laws specifically designed to provide the special services that are appropriate for juveniles and youth. This is especially true for offenses that would not be considered a crime if the individual were an adult. Development of methods for temporary care outside the law enforcement system may soon be mandatory on a nationwide basis (see Bill – S.2829 presented to the Senate committee on the Judiciary – November 9, 1971: The *"Runaway Youth Act"*).

Other areas that deserve special consideration for improvement include:

- Alcoholism and the recognition of alternatives to incarceration
- Victimless crimes. (The removal of a large portion of victimless crimes from the Criminal Justice System could relieve the system of a large burden.)
- Incarceration for family support payments. (Perhaps with more complete "women's liberation", this type of problem will be alleviated and "Family Courts" will be able to focus better as Civil Courts rather than quasi Criminal Courts.)

All of the above areas have information system needs to enhance the timely and effective performance of these general areas of improvements.

COMPONENTS OF THE CRIMINAL JUSTICE SYSTEM AND THEIR NEEDS FOR INFORMATION SYSTEM SERVICES

Information systems should always be subservient to the system they serve. In the case of information systems for Criminal Justice, it is important to outline its components and then *in a comprehensive manner*, define needs and requirements for information.

The previous paragraphs discussed general areas of needs for information services. The following paragraphs examine possible information system use by functional components of the administration of justice such as:

- Police
- Prosecutors
- Defenders
- Sheriffs
- Courts including Juvenile Courts and pre-sentence investigation
- Corrections
- Parole and Probation

POLICE

There are several areas where police could use information systems during their decision making processes to display alternatives to the usual channels of reporting to prosecution and courts. These alternatives could allow police to avoid inappropriate reporting due to restrictive channels. Police should be allowed to dispose of cases by various means consistent with individual and societal needs. This flexibility would enhance the application of resources outside the criminal justice system. Another information system need of police is the capability to update files thus avoiding improper labeling of persons caused by unpurged or non-updated arrest records.

Police functions relating to crime (as opposed to traffic and other non-crime related functions) can be categorized according to the following:

- Crime prevention (including guard type duty and presence measures) ·
- Investigation
- Apprehension and arrest
- Court functions
- Youth aid.

In crime prevention, the optimal geographic allocation of police to possible crime locations is an important function. Presently existing automated information systems allow allocation of manpower to high crime areas so that police presence may inhibit further criminal activity, thus contributing to crime prevention. Associated with this are quick response capabilities that often involve extensive communications and computerized real-time information systems.

In performing investigatory functions, police use information systems that allow quick access to patterns of criminal offenses including past arrests, juvenile crime, warrants, stolen property, hot desk applications, and positive identification systems. Of importance to police in preventing crime could be reporting systems that allow investigation of such things as gang activities so that alternative methods that aim toward guiding and reorienting activities of youth may be utilized by police or

other agencies. Data regarding *exposure* of individuals (especially youth) to an environmental situation that leads to their criminal behavior, may be developed by police, so that methods could be developed to aid youth by reducing the effects of exposure factors.

In the area of apprehension and arrest, information that clearly displays alternatives to the usual criminal justice process could be of critical importance in keeping people out of the Criminal Justice System while improving society. Such alternatives include the concept of the policeman acting as a referral agent. Specific alternatives could include:

- Drug referral
- Alcohol referral
- Referrals of juveniles and youth to agencies outside the Criminal Justice System
- Referral to *Civil Courts* for "crimes against family" (i.e., family support payments).

The higher goal of police in assisting youth in keeping out of trouble deserves the attention of information system designers. All police should receive training with respect to special needs of juveniles and youth. This special knowledge should not reside only in youth bureaus. All members of Law Enforcement should have available to them the information necessary to allow utilization of alternatives that society has to offer juveniles and youth.

PROSECUTORS

In the area of prosecution, feedback on long-term results of prosecutors' decision making could improve short-term decision making. This feedback could aid prosecutors by allowing them to avoid the *win-lose* syndrome in favor of the philosophy of aiming toward understanding of *how justice is performed.*

A common complaint of prosecutors is that plea bargaining is performed according to dictates of impossible time schedules and difficult work loads. Automated information systems could improve the situation through optimized scheduling and automatic notification processes. Given the proper amount of time and the necessary information, the process of "plea bargaining" could be performed on a more rational basis and could allow greater focus on improving future performance of alleged offenders. Insofar as information systems ensure that cases are not misplaced for consideration due to paper mixups and schedule conflicts, they could tend to improve prosecutors' ability to perform with due consideration to each case.

As previously stated for prosecution, information regarding the success of previous uses of alternatives provides feedback to allow focus on more than win-lose and allows improvement of prosecutorial decision making. In cases where the individual did not respond to the alternate treatment mode, the prosecutor may then be able to suggest improvements in the alternative. For example, if individuals are not responding in a drug referral program, the prosecutor may be able to confer with program directors to find out why the program is not working and then may be able to suggest methods for improvements to, perhaps, funding authorities.

Automated systems that rank-order cases so that it is assured that most serious problems come to the attention of the prosecutors are an important contribution of the information systems community in that they tend to optimize scarce prosecutorial resources. One could, however, be concerned that subsequent increases in *efficiency* may increase conviction rates, thus creating burdens on other aspects of the system. This may be a *symptom of a lack of use of opportunities to use alternatives* that divert individuals from the Criminal Justice System due to the built in natural tendencies to give less than appropriate consideration to those cases at the bottom of the rank-ordered list.

Methods involving the rank-ordering of cases by *parameters of individuals' need for services* would be an appropriate application in a prosecutors' management information system.

DEFENDERS

The area for system improvement for the defender is similar to those of the prosecutor. They include access to more comprehensive individual histories so that the defense can suggest rational alternatives to each component of the Criminal Justice System and components of society that could be of aid to his client. We can imagine defenders reviewing successful treatment precedents to support his recommendations for avoiding sentence as well as reviewing of legal precedents that are developed to support his legal case. We now have legislative search services and perhaps treatment/search services that aid defenders in presenting positive alternatives will be an important candidate for automation.

SHERIFFS

Certain functions of sheriffs, such as jail keeping and knowledge of the whereabouts of individuals

and provision and coordination of services to the jailed to enhance their ability to remain in society thereby minimizing unnecessary time incarcerated, are also important candidates for improvements. There are many areas where jail operations can be improved if jail administrators are innovative and nurture proper community support. Of particular interest is the development of plans for new jails that include more than the usual advice of steel manufacturers.

Modern jail program administrators recognize that they should no longer operate in a passive jail keeping role and that their responsibilities lie beyond steel bars and stone walls. They recognize that funds must be carefully spent and that costs of new secure type jails (ranging from $30,000 to $50,000 per cell) must be weighed against positive programs for rehabilitation and crime prevention.

In jail administration, the discipline of Program Planning budgeting and *evaluation* systems, (PPB&ES) and associated information systems could improve the sad state of affairs in the jails in the United States.

COURTS

In court administrative areas, the natural consideration of fair treatment must include avoiding *undue* respect for the comprehensiveness and accuracy of automated criminal history records. In a recent conversation with a court administrator regarding automated systems, the observation was made that "it seems that these automated systems are designed to automatically put us all in jail".

However, with this caveat in mind, there are areas of courts and court administration where computers serve important functions of ensuring efficiency in the use of court resources. Automatic methods for scheduling and notifying many agencies and individuals can allow the judiciary branch of government to utilize its time and effort in its most important decision making functions.

Persons and agencies involved in court operations include clerks, state witnesses, bailiffs, defense council, grant juries, trial juries, state attorneys, county or state probation officers and jailers. The actions of these agencies and/or persons for courts include:

- State attorney investigations
- Probation office reports
- Prisoner movement reports
- Judicial preview of indictments
- Bail setting and release on recognizance
- Docketing
- Scheduling of defense and state attorneys
- Arraignment and pleading
- Court trial

- Court sentencing
- Mental health disposition
- State institution reception reports
- Bail accounting.

It is accepted as a basic precept that courts are the protectors of individual rights and freedoms. Care must be exercised in the planning and coordination of information systems so as not to preempt judicial decision making functions and advocacy procedures.

Information systems for judges should include feedback on results of treatment prescribed for individuals, and should present alternatives that are available in sentencing procedures. Sterile pre-sentencing reports that display only easily formulated data will usually work to the detriment of defendants. In order to balance the situation, it is important to formalize reports that display positive aspects of the applicability of alternatives to incarceration for the individual along with objective narrative information.

JUVENILE COURTS

In the Juvenile Courts, great care must be exercised with the development of automated systems so that labeling of juveniles and youth is avoided. The reluctance of Juvenile Courts to take advantage of the capabilities of automated systems is due to the fear that ease of transmission could lead to improper use of confidential data. Use of automated systems, developed from the viewpoint of aiding judges in keeping juveniles out of the system, could prove to be a positive tool for improving juvenile justice. In the area of Juvenile Courts, the automatic presentation of the variety of assistance that may be available to juveniles is of prime importance. In all cases, special information systems technology for security protection and purging records is a requirement.

This consideration is due to the several problems inherent in labeling of youth and juveniles. Procedural and representation safeguards for juveniles should be adhered to even though they may not be required in local jurisdiction. Information systems such as those that schedule legal representation may be of assistance.

New reporting requirements regarding juvenile delinquency program effectiveness will be a significant area for designers of information systems.

PRE-SENTENCE INVESTIGATION

In pre-sentence investigations, it is important that more than the usual criminal history background data be developed. The successes and lack

of successes of an individual must be reviewed in the light of past decision making of the justice system. In the investigation process, items regarding the individual and how the justice system has dealt with him are of importance. Questions that should be answered are:

- Were expected treatment modes actually used?
- If they were imposed, were they effective?
- If they were not effective, will more treatment of the same kind be appropriate under present circumstances?
- What were the unknowns in previous reports that may show promise for effecting improvements in the individual?
- What was the level of *exposure* of the individual to experiences in the *system* and in *society* that tend to enhance his further offensive behavior?

Information systems to optimize the efforts of pre-sentence investigators could prove to be very useful in that they could allow the time for development of rational alternatives and recommendations for use by decision makers. Information could include job bank data, resources that may be made available from self-help groups, religious, family, and community assistance and assistance that may be available from a variety of government agencies.

Information retrieval system designed to extract lucid, narrative, and possibly voluminous data regarding individuals, and their environment could be useful, along with systems to aid in the scheduling of the time of investigators. It can be assured that excessive case loads of these investigators will only perpetuate the present inadequacies in classification and proper treatment of individual offenders.

CORRECTIONS

Correctional operations could be improved in several areas through the development of information systems that provide relevant information regarding their effectiveness. One of the classic problems of correctional institutions is their self-protective institutional outlook. In the development of alternatives to incarceration, correctional agencies are placing greater focus on community treatment, such as halfway houses, and other forms, and methods of integrating individuals into society.

In general, the correctional community needs to develop a *knowledge base* which can be used to demonstrate the effectiveness of alternatives to incarceration. Although well-structured institutional information systems exist to define the inmate population, institutional resources (such as cost of meals), and to some extent, criminal records of incarcerated persons, there is a need to develop systems to allow understanding of the effectiveness of correctional programs, and their later influences on individual clientele and society.

Due to the introverted character of classic correctional programs aimed at the secure and controlled warehousing of individuals, information systems that aim to measure effectiveness have been neglected. Research performed on a national basis indicates that "most prisons operate like businesses that do no bookkeeping, and remain in blissful ignorance of their gains and losses."

While there are a number of reporting systems that develop crime and offender statistics in the aggregate, they are, nevertheless, inadequate for relating correctional treatment to later activities of the individual. In this regard, the National Prisoner Statistics, the Uniform Crime Reports, and the more recent Uniform Parole Reports, as well as the Uniform Probation Reports, have not proved adequate to the task.

At present, corrections management cannot rely on programs such as Project SEARCH. Even though this project hypothesizes a computer accessible, nationwide data base, extended to include prior offenses, holding records available to be converted to active status when and if the individual once more enters the system after release, the basic thrust of Project SEARCH is oriented toward quick response requirements of law enforcement. Project SEARCH is of limited value in measuring the effectiveness of particular correctional programs.

A modern correctional administrator recognizes that he resides in a Field of Forces beyond his control that to a great extent limits his flexibility of action. These Fields include:

- Societal influences – political, economic and religious
- External policy determinants – judges, legislators and governor
- Requirements for institution internal control and maintenance.

Recognizing these influences, correctional management, in its evolution from prison boss through institutional manager and system administrator, must have a base of knowledge and research data to ensure that correctional practice is relevant to the world to which offenders are returned.

PROBATION AND PAROLE

The information system needs of probation and parole are characterized by the need to optimize their resources so that they do not need to rely on "technical violations" to reduce caseloads. Technical violations of probation and parole conditions

are a major source of pressure for incarceration. Special needs for information include data concerning social services and employment for their clientele. It is a sad commentary on the effectiveness of the system to hear of reports of incarceration due to lack of a gainful employment or provision of social services for individual clients.

Contrary to popular opinion regarding the ease by which parole for individuals can be obtained, studies have indicated that parole decision making agencies are a most conservative force that tend to keep individuals in institutions. Open hearings utilizing true advocacy procedures to help individuals to be released from institutional care are the exception in most jurisdictions.

Information and reporting needs of probation and parole decision makers are similar to the needs of police. These officers should be allowed to continually utilize all means for disposition of clientele problems and should not be restricted to incarceration as the only course of action when problems arise.

CONCLUSIONS

Areas for improvement of Criminal Justice Information Systems have been briefly discussed in the context of methods by which alternatives available to society and the Criminal Justice System can be better utilized. Information system theory relative to the way in which more comprehensive information systems can evolve has been explained in terms of how policy aimed at the intelligent phasing out of the massive and oppressive institutional care philosophy can effectively be performed.

One of the first research problems that should be undertaken is to develop measures of expected performance of alternatives so that decision makers can be more secure in their recommendations. The problem of measurement is therefore to define the levels of success/failure of various programs in terms of:

- The performance of the clientele
- The performance of the organization that serves the clientele.

Once these measures are defined, the problem can be resolved into one of development of the mechanisms by which relevant data are displayed to decision makers so that the principles of adaptive management may be applied.

END