

48302

## A COMPREHENSIVE INFORMATION SYSTEM FOR A CORRECTIONAL AGENCY

Adam C. Hart  
Management Information Specialist  
South Carolina Department of Corrections

The two primary functions for any Department of Corrections are: (1) To isolate the inmates assigned to it for the protection of the general public, and (2) To rehabilitate these offenders so that when they are released, they will be better prepared to become productive, useful members of society. Like most correctional organizations, the South Carolina Department of Corrections originally addressed the majority of its efforts to the first of these two functions. In the late 1950's however, the Department began to emphasize its responsibilities in the second category and prepared itself to carry out a complete program of rehabilitation. To the surprise of those involved, it soon became evident that there was not enough information available to enable the Department to establish or pursue truly effective rehabilitation programs. Although the Department kept modern records as far as corrections' requirements were concerned, there was not enough information available on background, relative capabilities, and needs of the inmates. The Department of Corrections then began to gather additional data, but the requirements soon flooded the manual records system then in use. It was not until the advent of automated data processing that there was an opportunity to get a workable rehabilitation program based on facts rather than surmise or intuition.

In order to place our talk in perspective, I would like to provide a few facts and figures concerning the size and responsibilities of the South Carolina Department of Corrections: (1) The Department handles only adult offenders so we deal only with people over 17 years of age; (2) Certain offenders ranging in age from 17 to 24 years are sentenced under a Youthful Offender Act, which requires special accounting and treatment; (3) We have 17 institutions of various sizes and security requirements throughout the state; (4) In 1971 the Department averaged approximately 3,200 inmates and 800 staff personnel; (5) We average about 210 receptions and about 170 releases per month; (6) The South Carolina Corrections' System does not distinguish between felons and misdemeanants; (7)

In South Carolina we have a dual corrections' system. Our Department has the responsibility of inspecting and approving county facilities, but has no other responsibility at the county level.

In July, 1967, the Department started an MDTA Project, which had the dual function of training prospective programmers, computer operators, and keypunch operators, and of establishing an inmate records system. This combination effort was continued for approximately three years, by which time it had become evident that it was impractical to meet MDTA requirements with inmates of correctional institutions and also, that it was impractical to attempt to maintain both a training program and an operational program on the same equipment. Accordingly, the Department decided to pursue a different route in establishing an inmate records system.

In mid 1970 an IBM 1440 system was acquired, and in late 1970 a grant request was submitted to LEAA to conduct a study for the development and implementation of a comprehensive information system in a correctional agency. In the spring of 1971 this grant was approved, and the Department took steps to acquire and assign a staff to conduct this study. The study officially started on July 1, 1971. The first few months were used to establish an Information System Advisory Committee, to increase the knowledge of the system study staff in the overall operation of the Department, and to select a consulting firm to assist in the study. The principal reasons for asking for consulting help were to compress the time span required and to get an objective external view of the Department's operations.

The system study project was undertaken as a three-phase program of study, analysis, and preparation for total implementation. It followed closely major recommendations of the Joint Commission on Correctional Manpower and Training which stated that correctional agencies should adopt a multi faceted research strategy which would include (a) in-house evaluation projects; (b) collaborative research ventures with institutions of higher education, private industry, and non-profit research organizations, and (c) cooperation with national, regional, and state efforts to disseminate research results.

Phase I of the study was the System Definition Phase. This involved collecting and analyzing all the reports and report forms that were used by the Department of Corrections. An effort was made to chart the flow of information into and out of every division and operating section of the Department. We attempted to take into account, not only the published or organization chart flow of information, but also the actual — sometimes informal — staff information requirements. Liaison was effected with outside agencies with whom the Department of Corrections routinely exchanges information. This included such agencies as the State Law Enforcement Division; the Probation, Parole, and Pardon Board; the Vocational Rehabilitation Agency; the Alston Wilkes Society, among others.

Phase II of the study was the System Design Phase. It was during this phase that we synthesized the system to meet the information flow requirements we had investigated in Phase I.

1. An information collection, processing and utilization flow schedule was developed. This schedule establishes when and where appropriate data and information concerning management resources and inmate background and behavior, by transaction, will be captured, stored, processed, and utilized.
2. An operations manual relating to the management and administration of the System was outlined. This manual included detailed direct input data forms and data collection procedures.
3. A detailed definition and processing description of each major programming application in the system was prepared.
4. A program outline was developed to delineate the interagency coordination and input of data necessary to ensure optimum performance of the system as designed.

The system we developed will, when implemented, accomplish all of the objectives we set out for it in Phase I.

Phase III was the System Demonstration Phase. Because of the programming load, we were not able to conduct a complete, dynamic demonstration as had been envisioned; but we established and prepared on the computer, using dummy data in some instances, several of the reports that had been developed during Phases I and II. During this phase an implementation master schedule, based on PERT/CPM project control techniques, was developed to serve as a guide for the orderly long-range establishment of the system. Finally, an estimated cost breakdown for all future staffing, equipment and software expenses was developed. This included an assessment of the potential capability of the present hardware, and a determination of how we can interface with the state criminal justice information system to enhance this capability.

The System Design Study for this system was completed in April of this year and approved in

early May. Implementation has begun and it is anticipated that full implementation will be accomplished by the end of 1973, approximately 15 months from now. In the meantime, the system is being evaluated, and when necessary, modified in order to accommodate new or revised requests.

Relatively early in the design effort we began to consider the Management Records System and the Inmate Records System separately. These two problems were similar in concept, but were quite different in detail. While there is a great deal of information crossfeed and a number of programs which bridge the two systems, we have found it best to maintain a clear separation between them.

The function of the Management Records System is to provide management information in such form that it will facilitate planning and operational decision making. The South Carolina Department of Corrections operates in the mode of management by exception. This means that the Management Records System must provide two levels of information. For top management levels it must prepare summary reports that will call attention to problems, aid in planning, and assist in establishing policy. For operating level personnel the Management Records System must provide various amounts of detail so they can focus on problems, imperfections, inefficiencies and opportunities for improvement. Both groups must receive information promptly enough to permit effective management through analysis, investigation, and astute supervision.

The Management Records System accomplishes four major tasks. The first of these tasks might be regarded as a record-keeping function. These records are used in cost analysis, budget preparation, and for audit purposes. They are also used to provide justification for appropriation and grant requests.

The second of these tasks comes under the heading of fund accounting. As you are all well aware, in today's world the money to fund a project may be coming from three or more sources. At the same time, individuals working on the projects may be dividing their time among five, six, or more separate efforts. It is extremely difficult to keep track of the allocation of costs to the various fund sources. Our Management Records System makes this allocation and prepares both detail and summary reports.

The third major function of the Management Records System is that of planning and control. This effort encompasses such items as maintenance records; equipment and supplies inventory; food

service, canteen, and commissary breakdown; Prison Industries' records; and will be extended to include agricultural management. By this last, I mean that we will be assisting in such matters as the planning and rotation of crops, and the acquisition and handling of cattle and swine. Incidentally, our dairy production records are already being handled by computer through our State Agricultural Extension Service and this function will not become a part of the Management Records System.

The fourth major task will be to simplify the accomplishment of routine administrative and fiscal functions. In this category come such items as personnel records, staff and inmate payrolls, accounts receivable and accounts payable, purchasing files, jail inspection reports, and similar reports that will make life in a paper-work world a little easier and more responsive.

The other portion of the Comprehensive Management Information System is the Inmate Records System. The overall function of the Inmate Records System is to provide us with a transaction-based accounting system suitable for monitoring inmate behavior and rehabilitative progress and to note and record the inmate's status in such fields as health, education, attitude adjustment, and other factors. Many theories concerning inmate behavior have been advanced and many rehabilitative programs based on these theories have been tried. It appears that a common fault of all of these systems was that they tended to be too simplistic. They made broad assumptions and generalizations and attempted to apply these broad features to individuals in specific cases. It appears that a requirement of any successful rehabilitation program is going to be sufficient knowledge of the individual to modify the theories to fit more precisely the individual's problem. This is one reason why we have attempted to go into such detail in the Inmate Records System.

Another area where we anticipate major assistance from the Inmate Record System is that of behavioral reinforcement. Any corrections system offers a wide range of living conditions — from punishment in solitary, on restricted diets, to work study release programs — with only the loosest of controls. Previously, it has not been feasible, with manual systems, to ensure that correct behavior was rewarded and misbehavior was punished. With the Inmate Record System we intend to insure that the inmate is kept completely informed of the behavioral standards required to attain any specific level of freedom, including eventually, parole or probation. We intend, also, to insure that if these

standards are met, the promised reward will surely follow; and if the standards are ignored, that loss of privileges is the inevitable result.

Our Inmate Record System is divided into five major sections: (1) Section one is the basic identification section; (2) Section two is the criminal history; (3) Section three is the family and background data; (4) Section four is the rehabilitation records, and (5) Section five is specialized services information. It should be noted that the first three sections can be considered as static information. The other two sections, rehabilitation records and specialized services information, can be expected to be updated at periodic intervals.

In our system the basic identification information is acquired from the commitment papers and by interviews at the Reception and Evaluation Center. The second section, criminal history, is obtained from the records of the Department, if there has been a previous commitment, and by contacting the State Law Enforcement Division and through them, the FBI, and NCIC. The family and background data is determined by a series of interviews conducted at the Reception and Evaluation Center, or if necessary, at other institutions in the Department. Wherever possible, this family and background data is verified by contacting the employers, schools, and agencies in the individual's home territory. The rehabilitation record is a complete, detailed, history of those incidents and assignments affecting the individual. It includes such information as custody status, and a record of changes to this status; disciplinary actions involving this individual; educational opportunities available and accepted; work assignments and level of performance; and routine periodic evaluations of the inmate's attitude and overall performance.

Section five, the specialized services information, includes information concerning the medical and dental record of the individual, psychological tests administered and their evaluation, psychiatric examinations and evaluations, data on social services assistance required and/or requested, and a record of special skills and accomplishments in the hobby, recreational and athletic areas.

The development of an information system for a correctional agency presents some interesting challenges in information system design and operation. These challenges are due to the type of information collected, processed, and disseminated. Much of this information is considered to be highly confidential and represents a potential hazard to

the privacy of the inmate if disclosure is made to unauthorized personnel or agencies. These factors of confidentiality and privacy of information were two of the key points that had to be investigated during the course of the Comprehensive Information System Study.

There are two types of data and information to be dealt with in the overall systems design. The first type is the management data that concerns the operational aspects of the Department and its various institutions. This data deals with personnel, budgets, fund accounts, and other administrative and management matters, and is to be made available on a "need to know" basis only. This information will be collected and processed under carefully controlled conditions of physical security. The processed information will then be handled and disseminated as determined by the Distribution List. This list provides that information should be given only to those who need it for the effective discharge of their duties. Such structuring of information needs by levels of responsibility is, of course, a function of management, not data processing.

The other major area of data and information to be treated in the system is that concerning the inmate, his criminal record, his progress in rehabilitation, and other personal information. Distribution of this information is limited to those officials professionally engaged in the rehabilitative processes of the Department.

Although subject to change during the implementation period, it is currently planned for information about inmates to be divided into four categories. Final determination of the information to be included in each category is not simple and generally requires thorough study.

The first category, the information most readily available, will consist of identification information. The data will consist of name, including aliases, physical characteristics, identifying marks, any assigned identification numbers, and similar information. This will be available to all authorized law enforcement agencies.

Category two, criminal history, will consist of those items concerning the criminal offenses for which the inmate is, or has been, charged. Category two information will be available to law enforcement and correctional agencies when appropriate need has been established.

Category three, institutional information, will consist of a transaction-based record of the inmate's status, including such items as medical and dental history, location assignments, work assign-

ments, IQ tests, attitude, and disciplinary actions taken. This level of information will be available to appropriate correctional authorities.

Category four, voluntary information, will consist of information volunteered by the inmate in response to confidential questionnaires, psychiatric evaluations, etc. This information will be available in summary or statistical form only and will be supplied only to persons authorized to engage in research and rehabilitation projects.

It was considered necessary for the protection of confidential data to develop internal physical security that would provide safety in both the transmittal and storage of information. Our program includes restricted access to the Department's computer system and records storage facilities, and the special handling of output reports. Records containing this type of information, whether management or inmate data, will be stored on separate disks or tapes and will be maintained under lock and key with the key available only to the supervisor of Data Processing. Information from these records will be run only under the direct control of the supervisor.

Use of random identification codes and similar means are also being considered to aid in preserving confidentiality of inmate data. We plan an experiment to code this inmate record information in a fashion known only to senior Department of Corrections personnel. We believe we can arrange the code so that even if the information were printed out, the individual concerned would not be identified. The volume of work involved has required postponing extensive experimentation until the latter phases of implementation.

A requirement of any program is an on-going evaluation of its objectives, procedures, and accomplishments. We have already begun this evaluation phase. In time we expect to re-examine every aspect of the system, but our initial evaluation will concentrate on three areas.

The first item we would like to effect is overall reduction in paper work such as record keeping, report preparation, and similar administrative functions. We feel we are already beginning to help this by handling both staff and inmate payroll, Food Service inventory, Federal Grant allocations, and similar program data.

The second area of evaluation will be that of more effective management. This is, of course, a very subjective type of evaluation and considerable time must pass before any significant results can be pointed to; however, already we have provided meaningful reports to assist in next year's budget

preparation, and have provided projections to assist with the capital budget planning function.

Finally, the most important and longest range effort will be probably the establishment and testing of new and innovative research programs. This phase of the evaluation will require several years of study, and will, like most corrections programs, use recidivism rates as a yardstick.

One of the aspects of this system study, which I feel is worthy of special mention, was the establishment and use of an Information System Advisory Committee. I must admit that my initial reaction at hearing that such a committee would be established, was a rather large "ho-hum". However, as it turned out, this committee played a significant role in the system study and is continuing this role during the implementation. Our Information System Advisory Committee consists of twenty-five people, representing all segments of the user population. In order to facilitate working with this large a

group, a steering sub-committee of five particularly interested individuals was selected. This steering sub-committee worked very closely with the staff and consultants during the System Design Phase and were a key to the acceptance of the system by the full committee. The influence of the full committee was a significant factor in the acceptance of the system by the staff of the Department.

The development of a system such as we are working on has been compared to the weaving of cloth in preparing a suit. From a technical viewpoint we feel we have prepared excellent material, but there is still a lot of work to be done before we have a suit that fits the prospective user. And unless the suit fits, we have not succeeded in reaching our goal. Our task for the next 15 months is to make sure all our measurements are correct so the cloth we have woven can be turned into a well-fitting suit that will keep the user happy and comfortable.



**END**