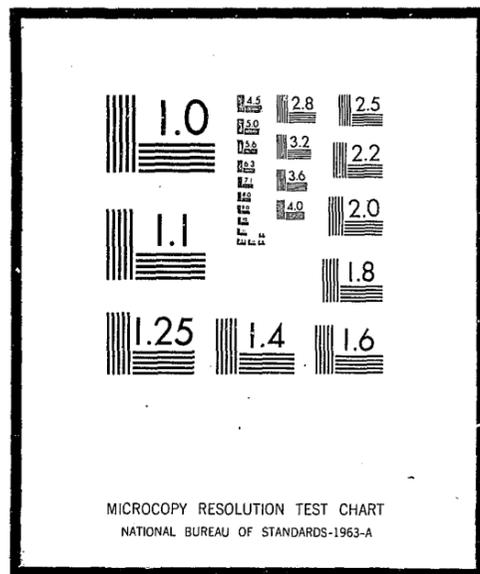


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8/5/75

JUSTATS* Centre

A Reference Centre for Canadian
Criminal Justice Statistical Information
and Systems

ics Source Tracing And Transmittal System

A study conducted for
The Federal-Provincial Conference
on Information and Statistics
held in Ottawa, June 1974

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THE JUSTATS* CENTRE

- a Reference Center for Canadian
Criminal Justice Statistical
Information and Systems

by John F. Townesend

* JUrimetrics. Source Tracing And Transmittal System

A Study conducted for the Federal/Provincial
Conference on Information and Statistics
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DISCLAIMER

The author accepts total responsibility for the contents of this study. It is not offered as necessarily being the view of any particular agency or level of government but, rather, as a contribution to the Canadian Criminal Justice Community by one of its members.

LETTER OF TRANSMITTAL

June 1, 1974

The Federal/Provincial Steering Committee,
Federal/Provincial Conference on Information and Statistics.

Transmitted herewith is the report, THE JUSTATS
Center - a Reference Service for Canadian Criminal Justice
Statistical Systems and Information.

The report was prepared in compliance with the
mandate:

"To locate, accumulate and synthesize a body
of relevant knowledge to facilitate pre-
liminary discussion at the Federal/
Provincial Conference on Information and
Statistics of alternative models for the
creation of a Clearing House for Criminal
Justice Statistical Systems and Information".

Acceptance of the proposals it contains is
recommended and it is hoped that, in general, it will prove
useful.

John F. Townesend

ABSTRACT

Co-ordination of effort in criminal justice statistics and the systems that generate them is essential for economy, co-operative planning, and administration in general. One means of achieving such co-ordination is studied - the Reference (JUSTATS) Center.

The JUSTATS Center is proposed as a central location for tracing sources of information on data sets, data element definitions, and data processing systems within the criminal justice system environment, and then disseminating this information to interested users. Needs of individual respondents for limited circulation of selected materials are accommodated. It is information about data rather than the data itself that is stored in the computerized data base. The data itself could, if in hard copy, also be conditionally available.

The Keyword Index emerges as a crucial element of the total operation, affording meaningful communication between the respondent, data base, and user, in a variety of services, using the vocabulary of the subject area for storage and retrieval.

The Referral Service would respond to users' questions, while the Notification Service would keep them informed of new additions to the data base. A Directory of Data Base Content and Sources would be published annually, and the Publication Service would also issue a User's Manual, Keyword Index, Acquisition Bulletin, Current Awareness Materials, and Selected Topic Digests. The Hard Copy Repository would be open conditionally to users.

The developmental period of the JUSTATS Center is discussed, and factors relating to the extent of subsequent growth identified. Contingent upon the management model determined, initial annual expenditure could range up to \$100,000 and, according to growth, final annual outlay could total up to \$1,000,000 upon maturity.

The study contains 26 proposals to promote discussion, and has comprehensive appendices which include a bibliography.

PREFACE

This study raises relevant issues to be addressed in discussion of the establishment of a mechanism for sharing and exchanging information on the availability of data sets, data elements, and data processing systems within the Canadian Criminal Justice System.

To ensure comprehensive coverage, focus is also directed on key areas by offering a series of specific proposals relating to them. The key areas are themselves identified within the context of a particular model for such a resource, thus forming an internally consistent, corporate whole. It follows that amendment in one key area may necessitate amendment in other key areas to restore equilibrium within this particular model. In addition, it may promote innovation in the identification of alternative models.

At the same time, the proposals are not represented as being a summary of the study contents - that is the role of the Abstract.

The study is, to a large extent, the product of informed discussion rather than a search of the literature. Perhaps this reflects the particular nature of its contents - that, in fact, it is breaking new ground. Certainly, it represents the close interest of those presently operating similar enterprises.

Parties with whom discussions were held are identified in Appendix 6. Appreciation is extended to them all and, particularly, to Mr. Joseph G. Cady and Mr. William G. Over of the National Criminal Justice Reference Service in Washington, D.C. for their forthright co-operation.

PART 1: THE BACKGROUND SCOPE AND ORGANIZATION OF THE STUDY

1.1 The Background of the Study

This is a study about economy. It is a study about sharing, and about communication. Its context is a phenomenon now costing in excess of one billion dollars a year and in which - until recently - economy, sharing, and communication were thought of only at the most local level. It is a report that addresses itself to a problem that will reach crisis proportion should it remain unchecked: the need to share information within the Canadian Criminal Justice System.

No component of the Canadian Criminal Justice System functions in isolation. A change here will have effects there. One agency must know what the other is doing, and vice versa, if they are to properly discharge their collective responsibilities in the matrix of interacting activities that comprise the Administration of Criminal Justice.

Informed management involves decision-making based upon a judicious blend of reliable fact with expert opinion. Especially is this the case in a multi-million dollar enterprise. In the past, however, it is generally

true to say that fact, as reflected through numerical data, has received low priority in the Canadian Criminal Justice System.

The sparcity of accurate, reliable and current data has become increasingly apparent in the swing during the past few years from viewing the crime phenomenon and its treatment primarily within the medical model of diagnosis, therapy, and prognosis to also seeing it as an appropriate subject for econometric examination.

Today, there is a growing realization that the management scientist, the operations researcher, and the economist have a role to play in criminal justice administration. There is increasing awareness that government funding of criminal justice programs cannot proceed merely on assurances of greater effort. It is now seen as time to look for results, to examine program benefits in relation to their costs, or at least - as one observer has suggested - to ensure the Criminal Justice System inflicts the least amount of damage at minimum cost.

The administrator planning to employ contemporary management techniques is, however, frustrated on two fronts. First, he generally finds he has inherited a legacy of non-existent data or, alternatively, figures which at the



local level lack currency, validity, and reliability and which, when aggregated at higher levels, reveal their lack of uniformity and consistency to an even greater extent.

A second source of frustration becomes apparent as the administrator embarks on introducing new statistical systems within his sphere of responsibility to fill the vacuum or replace the old. He becomes increasingly aware that any system designed to comprehensively monitor activity and trends within his own jurisdiction must necessarily reflect related influences in other jurisdictions outside his area of authority. He comes to recognize his sphere of responsibility as one element of the corporate whole, and to see that coordination of effort is necessary between jurisdictions if he is to have a clear appreciation of the dynamics surrounding his own operation.

Specifically, for example, the provincial institutional manager will see the size of his population determined largely by discretion exercised within the domains of law enforcement, the courts, and the paroling authority, over all of which he has no authority. Similarly, the police will recognize the impact of innovative correctional programs on their preventive and law enforcement programs, and the courts will identify the influence of changes in pre-trial detention practice upon their daily workload.

Such experience by the contemporary criminal justice administrator is apparent in all spheres of his activity: in evaluation and planning, in operational agencies and in research there is an inter-dependency for current, relevant, and uniform data between jurisdictions. He sees that only through co-ordination of effort, sharing and communicating can economies of scale and avoidance of duplication of effort be realized. He sees that he and his colleagues in other jurisdictions are mutually inter-dependent to position their individual responsibilities in the context of the whole and, thereby, to do a better job.

1.2 The Scope of the Study

This study offers a solution to the problems identified above. It describes a mechanism to co-operatively locate, identify, share, and exchange numerical, quantitative information on crime and criminal justice administration, primarily within Canada. It identifies the nature of a common point to which those directly or indirectly concerned with crime and the Canadian Criminal Justice System can address themselves as a generator of numerical data, a user, or as both.

Further, this mechanism is expanded to enable similar tracing and transmittal of information on data processing systems within the same subject area and data elements contained within them.

The mechanism, then, provides for the exchange of information in the following areas: data sets, data element definitions and data processing systems. These three subject areas would comprise the "Operational Content" of the data base of the mechanism. Attention is also directed to the intersection of the operation of the mechanism with other information and statistical groups.

The mandate of the study does not extend to include mechanics for sharing information of a qualitative, non-numerical nature nor for the development of a centrally located, unified data base embracing actual numerical data from different jurisdictions concerning the totality of crime and criminal justice administration from all jurisdictions concerned.

Rather, the data base of the proposed mechanism, generally and in part, contains information on the sources of numerical data and the nature of numerical data, rather than the actual numerical data itself. It will, however, be proposed that the mechanism include a repository for a single

reference copy of all hard copy numerical data contained in its data base.

The mechanism that will be proposed takes the form of what might be variously termed a clearing house or reference center, recognizing that these terms do not necessarily mean the same thing.

The Oxford Dictionary figuratively defines a clearing house as an "agency for collecting and distributing". Alternatively, the National Criminal Justice Reference Service (NCJRS) in Washington, D.C. - the foremost agency for disseminating law enforcement and criminal justice documentation in North America - sees itself as a reference center rather than a clearing house.

The distinction is one of both nature and degree. The difference in the nature is that a reference center is seen to provide a service in identifying other sources of information while a clearing house would itself have actual possession of such information.

The difference in degree is that a reference center may embrace an entire discipline (in NCJRS, law enforcement, and criminal justice) but direct its attention to limited materials relating to the discipline (in NCJRS, published books and reports only). A clearing house, however,

would go deep as well as the width of the discipline, including within its scope all available materials, such as newspaper clippings, posters, correspondence, university theses and, in general, all published and unpublished material.

According to this thinking, therefore, a reference center could in time become a clearing house if it retains within its possession the entire range of materials and information relating to a particular discipline.

The mechanism envisaged locally primarily addresses itself to exchanging information about sources and nature of criminal justice information rather than retaining the actual criminal justice information for dissemination itself. Since the latter would embrace all relevant machine readable information, clearly it is beyond the present enterprise. Further, while the depth envisaged for the present mechanism includes both published and selected unpublished material, it does not extend to correspondence, etc.

Accordingly, for present purposes, the mechanism under discussion might more appropriately determine a reference center rather than a clearing house and such terminology is, therefore, adopted for the balance of this report.

Proposal 1. That the mechanism for exchange under discussion in this paper be regarded as a reference center rather than a clearing house.

The proposed reference center is concerned primarily with two functions: finding out (i.e., tracing) sources of operational content for its data base and then causing the information to pass to other places (i.e., transmitting). In addition, the operational content relates to the administration of law (i.e., juridical) and to measurement (i.e., metric). In essence, therefore, we have a Jurimetrics Source Tracing and Transmitting System (acronym JUSTATS). It follows that the center administering the system would be the JUSTATS Center.

This report embodies many words and it is sometimes the view that words are substituted for action. In the present subject area, the need for action is urgent. All innovation has to commence with a first step and that if assured perfection were a necessary pre-requisite, innovation would be a scarce commodity. Accordingly, it is seen advisable to proceed to actively support the timely establishment of a reference center, modelled on considerations identified in the balance of this paper.

Proposal 2. That timely establishment of a reference center be actively supported, and that, upon establishment, it would be named the Jurimetrics Source Tracing and Transmitting System (acronym JUSTATS) Center.

The scope of the paper is also limited to developing a reference center that would address itself primarily to Canadian crime and criminal justice administration while, at the same time, interfacing with holdings elsewhere where its own data base lacks the necessary operational content. Such would, for example, be the case where Canadian data is lacking in a particular subject area and it is necessary to monitor experience outside Canada.

Proposal 3. That the JUSTATS Center would address itself primarily to Canadian content, with referral to holdings elsewhere as necessary.

Sources of numerical data relating to crime and the administration of justice might reasonably be seen to extend beyond the immediate system (Police, Courts, and Corrections) to embrace related areas such as unemployment, urbanization, suicide, etc. While such relationships would be of distinct eventual interest, to address them initially would be to dilute the extent to which urgent and direct attention could be provided to the immediate area of concern.

Proposal 4. That the JUSTATS Center would give first priority attention to data sets, data elements and data systems relating to Police, Courts, and Corrections, with later attention to peripheral socio-economic areas commensurate with available resources.

At the present time, the Input Identity System developed for the CANJUS planning model of the Canadian Criminal Justice System is already directed towards merging data relating to Police, Courts, and Corrections in three principal dimensions: flows of persons through the sub-systems, services provided to them, and the workloads such

flows represent to the service agencies. Since these units of count are basic for any management statistics, it is apparent that parallel operation of the JUSTATS Center and the CANJUS Input Identity System would involve duplication of effort.

Proposal 5. That the JUSTATS Center would, along with the needs of other users, meet the input needs of the CANJUS planning model of the Canadian Criminal Justice System.

1.3 The Organization of the Study

This study is organized in such a way as to raise relevant issues to be addressed in discussion of the establishment of a mechanism for sharing and exchanging information on the availability of data sets, data elements, and data processing systems within the Canadian Criminal Justice System.

To ensure comprehensive coverage, focus is also directed on key areas by offering a series of specific proposals relating to them. The key areas are themselves identified within the context of a particular model for such

a resource, thus forming an internally consistent, corporate whole. It follows that amendment in one key area may necessitate amendment in other key areas to restore equilibrium within this particular model. In addition, it may promote innovation in the identification of alternative models.

At the same time, the proposals are not represented as being a summary of the study contents.

The study is structured to first examine the objective and goals of the JUSTATS Center and, after an overview of its operations, to then consider through what types of service these targets might best be achieved. It then continues by examining the organization necessary to provide such services, and the geographical and organizational location of the organization. It concludes with a review of the means to ensure post-conference continuity with regard to its development.

PART 2: THE OBJECTIVE AND GOALS OF THE JUSTATS CENTER

2.1 The Objective of the JUSTATS Center

Proposal 6. That the Objective of the JUSTATS Center would be to promote compatibility and co-ordination of effort through provision of a central reference source on information relating to numerical data and systems for Canada's criminal justice community, and to use and disseminate its reference materials to most effectively support the related needs of that community.

2.2 The Goals of the JUSTATS Center

It is proposed that five specific goals will require attainment in order to realize the full overall objective.

Proposal 7. That the goals of the JUSTATS Center would be:

- (1) To set up a phased implementation plan for its growth towards the realization of the objective through achievement of each of the remaining goals below, subject to approval by an Advisory Committee;
- (2) To set up a computerized data base to store and enable timely retrieval in both official languages of sources of information on the following three subject areas:
 - (a) existing and proposed statistical data aggregations, tabulations, reports, analyses, and research;
 - (b) existing and proposed manual, mechanical and electronic data processing systems;
 - (c) existing and proposed definitions and specifications for data elements and system components in, respectively, (a) and (b) above.

- (3) To set up means to ensure receipt of a continuing description by members of the Canadian Criminal Justice community of their holdings in each of the three subject areas;
- (4) To set up means to ensure that members of the Canadian Criminal Justice community are informed of the nature and location of holdings in each of the three subject areas;
- (5) To set up a central repository for selected hard copy in each of the subject areas to supplement the data base.

PART 3: OVERVIEW OF THE OPERATION OF THE JUSTATS CENTER

3.1 The Principal Elements

In acting as a medium for exchange of information, the JUSTATS Center operation would be comprised of six principal elements:

1. The Respondents - the parties that send information in;
2. The Data Base - that stores the information and enables its timely retrieval;
3. The Users - the parties that receive information out;
4. The Staff - who serve the respondents and users, and are aided by the computerized data base;
5. The Advisory Committee - which monitors the overall performance of the Center at a policy level and is representative of the interests of both the respondent and the user;
6. The Keyword Index - a hard copy publication basic to the operation of the JUSTATS Center, identifying a common terminology and, therefore, promoting communication. This terminology is also built into the files of the computerized data base so that it is responsive to

similarly termed respondent input and user output requests. It is, of course, also reflected in all paper flow related to input and output. The terminology would be defined throughout in both English and French language equivalents.

It is probably useful to examine each of these elements in greater detail, noting that the Advisory Committee and Staff will receive particular attention in Part 5: Organization.

3.2 The Respondents of the JUSTATS Center and Their Input

These are the parties who would send the JUSTATS Center information on statistical data sets, data element definitions, data processing specifications, and so forth. Co-operation by respondents would be a necessary prerequisite to the success of the Center. Since many respondents would also be users, co-operation implies full commitment to a give-and-take relationship. If there are no givers, it follows that there can be no takers.

The respondents would, generally, be those who possess information useful to the users and the extent of their identity would, to a large extent, be according to the ingenuity reflected by the staff of the Center in the scope of their tracing appropriate holdings. As the Center became more widely known, unsolicited input would also likely be received.

The respondents would likely submit information on - for example - data sets reflected in the following dichotomies:

- Primary data (unprocessed, absolute figures)/
Secondary data (processed by introduction in
time series, expressed proportionately, etc.);
- Preliminary or Draft data/Final data;
- Series/One-time;
- Available free/Available for fee;
- Published data/Unpublished data;
- Restricted data/Unrestricted data;
- Manual/Mechanical/Computer production.

Such characteristics would comprise a portion of the data set description held by the data base, and discussed below.

A series of provisions would be available to those respondents who might wish to see information on their holdings restricted to certain categories of users. These options are as follows:

1. They could initially withhold all information on the holdings;
2. They could submit the information, and at the same time, indicate the categories of users to which it could be released;
3. They could submit the information, requiring that specific authorization be obtained from them prior to release to any particular user indicating interest in the type of data involved.

Standing Agreements or Particular Agreements to Publication, reflecting any restrictions if relevant, would be obtained in writing from all respondents prior to addition of their input to the data base. In effect, this agreement would

authorize the JUSTATS Center to release the information to some or all users and would overcome any copyright considerations that may be involved.

The nature of the input to the JUSTATS Center would necessarily depend on the type of the holding itself. If the holding were available in many copies without charge, the data sets themselves could be sent for distribution by the Center according to expressed user need. Alternatively, if the holding were available in single copy only, this would be retained in the hard copy repository of the Center and the data base would indicate that requests for copies from users were directed by the user straight to the respondent. This would also be the case where a fee was involved, either for purchase of a publication or to cover the expense of generating reports by computer to meet specific user needs.

Generally, if the holding was computer generated a description of possible cross-classifications, listings, plotted hard copy, etc., would be held on the data base and no hard copy would be held in the hard copy repository of the JUSTATS Center. This would be especially the case where regularly updated, continuing inventories of populations, etc., were concerned.

3.3 The Users of the JUSTATS Center, and Their Requests

These are the parties who would utilize the services of the JUSTATS Center to obtain information on statistical data sets, data element definitions, data processing specifications and so forth. Usually, they would comprise the totality of respondents and, in addition, be persons located outside the Criminal Justice System and its peripherals but nonetheless interested in it.

Services offered to the users will be discussed at length below. At this point, suffice to say that they would be both general and particular, and embrace initial initiative taken either by the Center or the user himself.

From the foregoing discussion, it becomes apparent that members of the Canadian Criminal Justice Community are broadly based and would include the following:

- municipal, provincial, and federal governments;
- private correctional services;
- the academic community;
- commissions, councils, associations, and boards;

- publishing industry, security guard industry, commerce, etc.;
- interested members of the general public.

Particular merit is seen in having the academic community participate as both respondents and users in the JUSTATS Center program. With academia as respondents, the broad range of users would have direct access to all contributions to relevant knowledge offered in Ph.D. dissertations and the like. Through a user role, the academics could better recognize areas where statistical research is scant and, therefore, more appropriately formulate contract proposals of interest to the operational agencies of the Criminal Justice Community and also identify more relevant thesis topics.

Proposal 8. That the respondents and users of the JUSTATS Center would be broad-based embracing government, private agencies, academia, industry, and interested members of the general public.

While discussion has focussed on Canadian Criminal Justice respondents and users, it would be clearly

desirable that the JUSTATS Center should also make its contribution to the reference center community as a whole, both within and outside Canada.

There are other reference centers or clearing houses within Canada with which the Center naturally interfaces, which are discussed at length in Part 6: Location of the JUSTATS Center Organization. There are also similar resources outside Canada, the most significant perhaps being the National Criminal Justice Reference Service (NCJRS), located in Washington, D.C. The JUSTATS Center could provide a natural link for such resources where they relate to Criminal Justice and wish to establish international contacts.

Proposal 9. That the JUSTATS Center would assume working relationships with other related reference centers or clearing houses, both within and outside Canada.

Before proceeding with a discussion of the data base, it may be noted that while the content above relating to respondents and users is primarily expressed in the context of information relating to data sets, the same principles apply

to other operational content of the JUSTATS Center - such as system specifications and data element definitions.

3.4 The JUSTATS Center Data Base

The data base would be the primary tool for the staff of the JUSTATS Center to relate available holdings with user requirements. The three standard options would be open - that it would be manual, mechanical or computerized. A number of considerations influence the choice:

1. Number of files

It is anticipated that, aside from the hard copy repository, the data base for the JUSTATS Center would involve a minimum of seven files:

- (a) The Data Set Inventory;
- (b) The Data Processing System Inventory;
- (c) The Data Element Definitions Inventory;
- (d) The Systems Specifications Inventory;
- (e) The User Inventory;

- (f) The Management Statistics File;
- (g) The Publication Generation File.

The first four are what has been termed the operational content of the data base, and are directly related to the subject area of the JUSTATS Center. It is possible that (d) can form a sub-file of (b), thereby reducing the number of files to six.

The User Inventory would be a listing of all registered users, classified by occupation, employer, geographical location, address, telephone number, and so forth. It would afford ready update of changes of information - such as address - and retain the option of selective notification service according to individual user interest profiles. Further, it could provide the base for computer generation of address labels for distribution purposes.

The Management Statistics package would massage the data base to produce a by-product of basic operational content, enabling a monitoring of the performance of the Center in terms of turn-around time, volume and type of workload, the number and distribution of file searches, and so forth. Related to the User file, it could generate management information on who is using what services, and when, etc.

The Publication Generation File would re-format appropriate portions of the data base to form the principal contents of the Keyword Index, the Directory of Data Base Contents and Sources, the Aquisition Bulletin, etc.

2. Interaction Between the Files

As indicated above, there would be a management need to merge data from respective files in order to maximize cost effectiveness. There would also be a service need as it would, for example, be useful to be able to relate data elements in one file to data sets, in which they are reflected, in another file.

3. Complexity of the Files

The degree of specificity reflected in the operational content inventories would be directly related to the extent to which selectivity is needed in response to user requirements: the more specific the anticipated request, the more specific would be the data held on inventory.

A broad range of subjects (as discussed below in relation to the Keyword Index), user interests, respondent needs for restricted circulation and the varied classes of holdings (as outlined in Section 3.2 above) would be involved.

4. Planning for Future Growth

It is clear that the possible range of permutations and combinations exceeds the bounds of manual operation and necessitates a degree of flexibility for growth that would quickly date a mechanical operation.

Further, moves to higher levels of service - such as Selective Notification of Information (SNI) - would be dependent upon a computerized operation.

Finally, the capability of presently available computerized information storage and retrieval services, used on a time-sharing basis, would well exceed the performance of a clerical staff performing the same duties. Some time-sharing resources also enable interface with word processing and text-editing programs that could be most useful in generating the updated content of the titles discussed below under the heading of Publication Services.

Proposal 10. That the data base of the JUSTATS Center would be computerized.

Proposal 11. That the computerized data base would consist of inventory files containing Data Set information, Data

Processing System information, Data Element Definitions, System Specification information, and User information, and that it would also contain files for generation of JUSTATS Center management statistics and for publication generation based upon the inventory files above.

3.5 The JUSTATS Center Keyword Index (KI)

As noted briefly in Section 3.1 above, the JUSTATS Center Keyword Index would be a hard copy publication containing systematized listings of criminal justice, statistical and data processing terms used to classify the contents of the operation content of the JUSTATS data base.

The Keyword Index would reflect the "living language" of the user, and assist in ensuring, to the extent possible using a subjective system, that they are not duplications of essentially the same phenomenon within the data base under different keywords. Similarly, it would assist in determining that all known subject areas relevant to the data base were incorporated in it. In this connection, the keyword index would be constantly scrutinized and updated, and terms

added, deleted, and modified consistent with changes in the "language" of the user community.

There would likely be a separate Keyword Index for the Data Set Inventory, the Data Element Inventory, and a combined Keyword Index for the Data Processing System Inventory and Systems Specifications Inventory.

To some extent, this would reflect differences in terminology between the criminal justice and data processing subject matter areas. Where there was overlap, consistency would be maintained. However, the distinction would be more closely related to different types of association between the keywords in different inventories rather than differences in the keywords themselves.

The Data Set Inventory will be utilized as the example, in the following paragraphs.

The Data Set Keyword Index would consist of keywords of several different types according to the substance for which they are the descriptive label. It would employ two levels of word association terms.

The first level would be that of the Subject Keywords. These would be general terms covering the broad topics with regard to which data sets were compiled. This level would, in the majority of instances, be structured to

reflect topics categorized by their location in the Criminal Justice Sub-systems - one of Police, Courts, or Corrections. For example, data sets relating to crime clearance rates would be categorized within Police, those relating to dispositions under Courts, and data sets relating to probation would be under Corrections. Some topics however, such as certain types of recidivism, could transcend all three sub-systems and others, such as victimology studies, fall outside any of the three main sub-systems. They would, therefore, be respectively grouped under Total System or Other. It can be noted, therefore, that they would, in fact, be a two-tier hierarchy within the first level keywords.

The second level keywords would add more specific dimensions to the data sets categorized within each of the first level subject areas. The second level keywords would therefore be of several types:

The Geographical Keyword would identify the geographical location of the subject quantitatively described in the data set, and levels of geographical aggregation;

The Organization Keyword would identify the organizational location of the subject, and be two-tiered in that organization would be categorized first on a government/non-government dimension and then by organization function within each of these;

The Stream Keyword would also be two-tiered. The first tier would indicate whether the data set relates to the adult and/or juvenile Criminal Justice System streams, and within each category, the second tier would specify a male and/or female dimension;

The Fiscal Year Keyword would identify the location of the reported phenomenon in terms of time within respective fiscal years, with adjustments incorporated for data sets reflecting calendar year figures;

The Unit of Count Keyword would identify whether the subject reported was counted in persons, incidents, dollars, man-years, time-elapsed, etc., or any combination of these (eg., dollars per person). This keyword, therefore, would discriminate between data sets on flows of persons through the systems, services provided to them, and workloads.

Two examples may assist to clarify the assignment of keywords:

<u>Keyword</u>	<u>Example 1</u>	<u>Example 2</u>
Subject	Police - Murder	Corrections - Parole
Geographical	Alberta	Canada/Provinces & Territories

<u>Keyword</u>	<u>Example 1</u>	<u>Example 2</u>
Organizational	Government - Municipal and Provincial	Non-government - Private Agency
Stream	Adult - Female	Adult - Male and Female
Fiscal Year	1970-1971	1970
Unit of Count	Persons (unduplicated)	Dollars or Man- Years

Example 1 is the keyword configuration for a search for data sets reported to the JUSTATS data base relating to Murder in Alberta, reported by Municipal and Provincial Police, committed by adult females (unduplicated count) during the fiscal year 1970-1971.

Example 2 is the keyword configuration for a search for data sets on parole services rendered by Private Agencies, in each of the Provinces and Territories, with a Canada total, to male and female adult subjects, expressed in dollars or man years.

Proposal 12. That retrieval capacity for data set information would be through keywords associated with subject area, geographical location, source organization type, Criminal Justice System stream, fiscal year and unit of count of the data represented.

It is noteworthy that the extent to which data sets would be identified on the JUSTATS data base in response to searches of this nature is a function of the nature of the algorithms employed in the data base specifications. For example, if data sets were non-existent precisely as searched for, the data base could be programmed to retrieve on a "next-best" or approximation basis.

It is also essential to note once again, that a successful search would result in the identity of a data set reflecting the desired characteristics, and not the data itself. Factors involved in the identity would include the items of information listed in section 3.2 above in addition to such items as the following: the data set accession number, the name and address of the respondent, the study name (if any), sample size, the universe, location, an annotation and, on a selective basis, an abstract.

Proposal 13. That information retrieval on data sets, in addition to the retrieval characteristics listed in Proposal 12, would consist of the following: Other keywords associated with the data set, the data set accession number, the name of the

respondent (any one or more of publisher, author, agency), the respondent reference number, sales source, cost, study title, date of production, number of pages, sample size, the universe, type of data (Series/One-time, Published/Unpublished, Restricted/Unrestricted, Primary/Secondary, Preliminary or Draft/Final), an annotation and, selectively, an abstract.

It follows that the keywords identified in the index would, in a literal sense, be the key to the effectiveness of the JUSTATS Center. As will be seen, they would be the medium by which data set content reported to the JUSTATS Center would be indexed, stored, and retrieved during searches.

The Keyword Index would also contain narrative definitions of the keywords as used by the JUSTATS Center.

The Keyword Index would be published in both the official languages. It follows that respondents could forward information in either the English or the French language and that the data base would respond to searches conducted in either language.

Maintenance of concordance in translation of terminology would emerge as a central consideration in the development of the keyword index. Full advantages would, therefore, be taken of work already conducted in this area.

There is, for example, the bilingual Canadian vocabulary for common and civil law titled JURIVOC, and prepared at the University of Ottawa. The basic purpose of this machine readable vocabulary is to provide a basis for translation and for drafting legal material in either French or English. In addition, Project DATUM based at the University of Montreal, and which is concerned with law data, could likely provide useful assistance.

PART 4: SERVICES TO MEET THE JUSTATS CENTER OBJECTIVE

Once the data base had within it a sufficient body of information, there would be four types of service that could be provided by the Center:

- (1) The Referral Service;
- (2) The Notification Service;
- (3) The Publications Service;
- (4) The Hard Copy Reference Service.

It is useful to examine each of these services in detail.

4.1 The Referral Service

Essentially, this would be a search and retrieval operation on the data base to respond to questions received from users either in writing, by telephone, or during visits to the JUSTATS Center. The Referral Specialists would be the interface between the users and the data base, and it would be the Specialist who, using a Search Request form,

would "translate" the user's request into keywords by which to search the data base. The Referral Specialist, who will be considered at length in Part 5: Organization below, would then compile a Search Response Record containing identification material on the requester, his request, the action taken, and administrative information such as the number of searches required. If the JUSTATS data base was unresponsive to the request, the Referral Specialist could refer the user to other possible sources of the information required.

It is axiomatic that the Referral Specialist would necessarily have command of both the subject matter content of the user's own background and also of the JUSTATS Center facilities and other sources of reference if he were to provide an adequate interface between the two environments.

A response might also take the form of hard copy documentation or information as to where the documentation may be obtained, a bibliography, or a letter. Examples of typical questions would be:

On Data Sets:

(specific)

- What data set documents are available on pardons granted to females under the Criminal Records Act in 1970, 1971, and 1972?

On Data Sets:

- (general) - What data set documents are available to assist us in developing a program on recidivism?
- (special) - What data set documents are available to help us to compare the interface between the Native Offender and the Criminal Justice System in urban and rural locations?
- (bibliographic) - List all data set documents relating to capital punishment.

On Data Element Definitions:

- (specific) - What categorizations are (a) in use, (b) recommended, for introducing uniformity for the following variables: Alcohol Usage, Crime Type, Employment Record?
- (general) - What data elements are available ready-classified appropriate to a self-evaluation program for community-based residential centers?

On Data Element Definitions

(bibliographic) - List all data elements presently used in probation workload studies with their respective internal categorizations.

On Data Processing Systems

(specific) - Which jurisdiction operates time-reporting systems for custodial officers, and what technology is employed?

(general) - What systems exist relating to corrections management?

Proposal 14. That the JUSTATS Center would offer a Referral Service.

4.2 The Notification Service

The Notification Service would involve distribution by the JUSTATS Center of condensed information of documents recently added to its data base, and the location where

further information on them may be obtained (either at the Center or elsewhere, depending on the type of document involved).

All registered users of the JUSTATS Center would receive a copy of the Acquisition Bulletin, which would be issued periodically. The Bulletin would categorize acquisitions by primary subjects (Police, Courts, Corrections, etc.) and by Inventory Type (Data Sets, Data Elements, or Data Processing Systems).

The Acquisition Bulletin would be the initial step towards more selective notification of holdings that, commensurate with available resources, might follow if the specificity was warranted by the volume and range of documents within the data base and by the variety of individual user interest profiles, which would be solicited individually from them.

The summary information provided would be a selection of the items listed in Proposal 13 above, and the Bulletin content would largely be generated by the Publication file within the data base. It would likely be produced on a quarterly basis.

Proposal 15. That the JUSTATS Center would provide a Notification Service.

CONTINUED

1 OF 3

4.3 Publication Services

This series of publications, printed in both official languages, would - other than the Referral and Hard Copy Reference Services - be the principle source of contact between the JUSTATS Center and the user. The series envisaged is as follows:

1. User's Manual

This would be a booklet outlining the scope of the data base, the cost and availability of JUSTATS Center products and services, providing details on procedures for user registration and indicating how the Referral and Hard Copy Reference Services operate. It would also indicate the range and use of the Publications produced.

Since there would be no requirement for the user himself to employ the keywords or search techniques, it would be unnecessary to include technical details of this nature in the User's Manual.

2. The Keyword Index

This is discussed at length in Section 3.5 above. The Index would, generally, be for use within the JUSTATS Center for indexing and retrieving documents. However, copies would be available for those persons interested in its content from a technical standpoint.

3. Acquisition Bulletin

This publication is covered extensively in Section 4.2 above.

4. Directory of Data Base Content and Sources

This publication would initially consist largely of aggregations of the content of the Acquisitions Bulletin discussed in Section 4.2 above.

Subsequent refinement would likely involve greater selectivity of content, according to the currency of the data sets, and their availability.

The Directory would consist of three parts - Data Sets, Data Element Definitions, and Data Processing Systems. Each part would then be divided into four sections:

- (1) Title List - available documents alphabetically by title, each entry including bibliographic information, author, document date, number of pages, annotation, any cost, and availability source;
- (2) Subject List - a listing of document titles by subjects which describe the substance, or content of the documents.

The subject - the subject keywords and selected second level keywords (such as organization, geographical location and unit of count) - would be alphabetic and the titles further arranged alphabetically within each keyword;

- (3) Source List - an alphabetic listing of all contributors of documents in the data base. This would include full name, address and telephone number, and their type of contribution;

- (4) Abbreviations Availability Source - an alphabetic list of abbreviations utilized within the Directory.

The Directory of Data Base Content and Sources would likely be published annually initially and its content would largely be generated by the publication file within the data base.

5. Current Awareness Material

Issued periodically, this would advise its readers on the status and progress of the JUSTATS Center,

additions, modifications and reductions of service, general interest news items related to the user community, and so forth.

The material would take many forms depending on the matter being communicated, for example, brochures, flyers, bulletins, announcements, and letters.

6. Selected Topic Digests

The Selected Topic Digests would be a series, each of which would be a summary of existing documentation covering a selected subject in the sphere of Data Sets, Data Element Definitions or Data Processing Systems.

It would contain an authoritative synopsis of the contents of the documents summarized and would be prepared by the Referral Specialist appropriate to the topic selected.

Proposal 16. That, commensurate with resources, the JUSTATS Center would introduce a Publication Service, comprised of the following publications: User's Manual, Keyword Index, Acquisition Bulletin, Directory of Data Base Content and Sources, Current Awareness Material, and Selected Topic Digests.

4.4 Hard Copy Reference Service

The potential would exist for visitors to the JUSTATS Center to have access to the documents in the Hard Copy Repository discussed in Section 3.2 above, for reference purposes on the premises.

A check-out form would be used to control such access and it would, of course, reflect any respondent needs for restricted circulation of their input. At the same time, this service would differ from those services discussed above in that it would be the actual data itself rather than information on its availability that would be available to the user. Prior agreement by all interested parties would seem essential in this potential extension of service.

Proposal 17. That the JUSTATS Center could offer a Hard Copy Reference Service, if such a broadening of service scope was agreed upon.

4.5 Priorities for Introduction of the Services

The current statistical urgencies throughout the Canadian Criminal Justice Community indicate it would be

useful for it to have access to available holdings at the earliest opportunity. This would, in all likelihood, be in advance of the computerized data base being operational, service being provided when possible on an interim manual basis.

While it would be important to ensure that such limited service would not become accepted as the norm, or otherwise interfere with the proper development of the JUSTATS Center, examination of the proposed services indicates a logical chronological sequence for their introduction.

Chronologically, it would first be necessary to commence periodic Current Awareness Materials to inform the Criminal Justice Community of the existence of the JUSTATS Center, and its objective, goals, and eventual services. It would be necessary to use this medium for crystallizing existing potential respondent and user listings, and to acquire formal registrations for service, etc.

As documents commenced to flow in, they would be processed and, eventually, find their way to the Center's Hard Copy Repository. At this point, the Hard Copy Reference Service could commence operation. At approximately the same time, it would be possible to manually compile an Acquisition Bulletin, thus introducing an interim level Notification Service. An Interim User's Manual would logically follow to cover the services already available.

Development of the data base would be a necessary pre-requisite to further services. The Keyword Index, perhaps manually produced, would be constructed as an essential element of the data base specifications. It would, therefore, represent the next available service.

With the search capacity of the data base operational, it would then be possible to introduce the Referral Service. A computerized edition of the Acquisitions Bulletin would likely be the first publication generated by the publication file of the data base, followed by a computerized Keyword Index and, then, the first annual Directory of Data Base Content and Sources. Finally, attention could move to identifying appropriate Selected Topic Digests.

Proposal 18. That, commensurate with resources, the JUSTATS Center services could be introduced in the following order:

- (1) Current Awareness Material
(according to need, throughout);
- (2) Hard Copy Reference Service;

- (3) Notification Service (Acquisitions Bulletin) - manually produced;
- (4) User's Manual;
- (5) Keyword Index (manually produced);
- (6) Referral Service;
- (7) Notification Service (Acquisition Bulletin) - computer generated;
- (8) Directory of Data Base Content and Sources;
- (9) Selected Topic Digests.

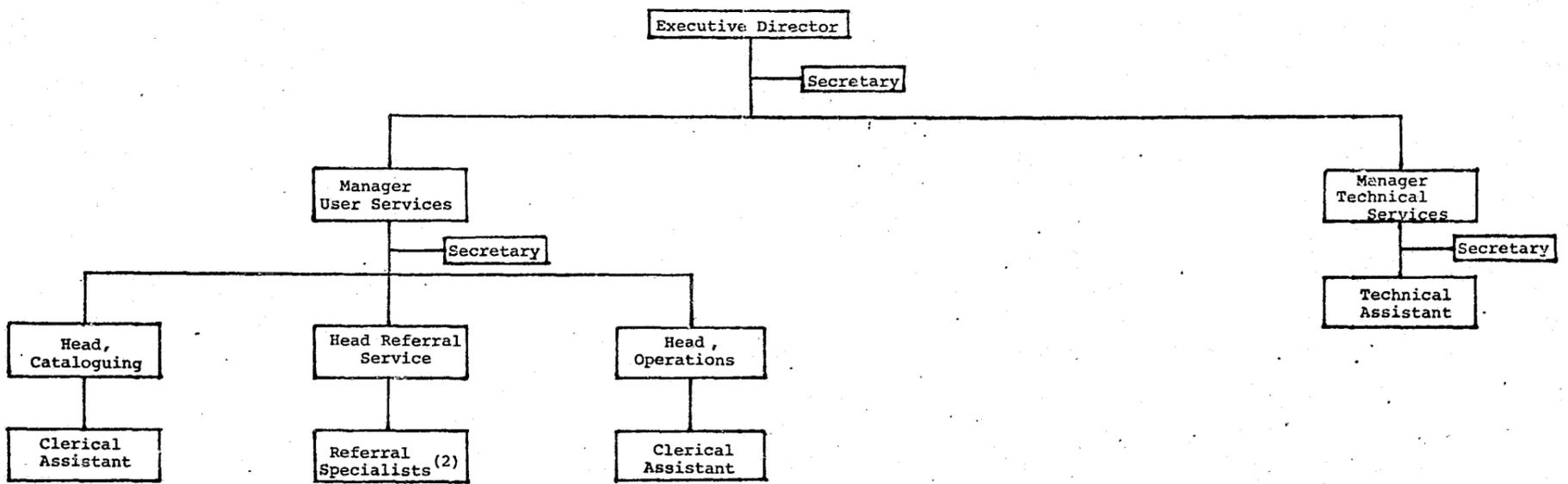
PART 5: ORGANIZATION TO PROVIDE THE JUSTATS CENTER SERVICES

5.1 Overview of the Organization

Figure 1 demonstrates that, having reached full operational status with all user services underway, the JUSTATS Center could involve a commitment of 14 man-years. Whether it would involve such a resource would be contingent upon user needs, as expressed through the Advisory Committee, concerning such considerations as the following:

- (1) Whether all or only a portion of the types of services listed at the start of Part 4 are needed;
- (2) Whether additional levels of service are needed - such as the selected notification of information according to individual user interest profiles indicated in section 3.4;
- (3) Whether the role is extended from a Reference Center to that of a Clearing House, as distinguished in section 1.2, and reflected in Proposal 1;
- (4) Whether the subject area of the data be extended to less immediate concerns - such as

FIGURE 1
ORGANIZATION OF THE JUSTATS CENTRE (AT MATURITY)



RESPONSIBILITIES

	CATALOGUING UNIT	REFERRAL SERVICE UNIT	OPERATIONS UNIT	TECHNICAL UNIT
User Services	<ul style="list-style-type: none"> - Notifications Service - Hard Copy Reference Service 	<ul style="list-style-type: none"> - Referral Service (Data Sets and Data Elements) 	<ul style="list-style-type: none"> - Publications Service 	<ul style="list-style-type: none"> - Referral Service (Data Processing)
Functions	<ul style="list-style-type: none"> - Subscriptions - Acquisitions - Cataloguing - Hard Copy Repository 	<ul style="list-style-type: none"> - Indexing - User Advice - User Cultivation - User Feedback 	<ul style="list-style-type: none"> - Operating Procedures - User Registration - User file update - Publications Preparation <ul style="list-style-type: none"> - graphics - camera ready - translation liaison - word processing - Distribution - Central Registry 	<ul style="list-style-type: none"> - Systems Design & Development - Paperflow - Data Base Maintenance <ul style="list-style-type: none"> - Data Sets File - Data Elements File - Data Processing File(s) - Management Statistics File - Publication Generation File - User File
Orientation	Library Science	Criminology, Corrections	Organization & Methods, Records Management	Systems - E.D.P.

unemployment, urbanization, etc., mentioned in section 1.2 and in Proposal 4;

- (5) The volume of the workload which, in turn, would be reflected by consensus around the user community identified in Proposal 8, the distribution scope of Current Awareness Materials, and the implications of funding options identified in Proposal 24;
- (6) The acceptable standard for turn-around time between receipt of a user's request for source information and a response to it;
- (7) The extent to which the respondents forward descriptions of their holdings, in the first instance.

It is axiomatic that growth to the level envisaged in Figure 1 would be phased. Further, it is anticipated that some services would be supplied by staff and others under contract, depending on the organizational location of the Center (see Part 5). To provide scope for fullest discussion, growth to full maturity is assumed in the following paragraphs.

The initial nucleus to see the development underway would likely consist of the Executive Director, the Manager of Technical Services, a clerk, and a secretary. This unit would be responsible for initiating planning and laying the foundations for future growth. Likely concentrations during this phase would be identifying respondents, constructing operating procedures and then moving into detailed development of each functional area in a manner compatible with the operating procedures. Each of the four Units - Cataloguing, Referral Services, Operations, and Technical - would receive attention during this phase which would likely precede the phased commencement of services outlined in Proposal 18 above.

Proposal 19. That the initial planning nucleus of the JUSTATS Center would comprise a staff of four - an Executive Director, a Manager of Technical Services, a Clerk, and a Secretary.

Figure 1 also demonstrates that, based upon the nature of the work that could be undertaken and the areas of special knowledge required, four units evolve to comprise the mature organization - Cataloguing, Referral Service, Operations, and Technical. Final responsibility for the user services identified in Part 4 would be divided between the units although, at the same time, the product in each of the services would necessarily reflect combined efforts.

5.2 The Cataloguing Unit

The Cataloguing Unit would reflect a Library Science orientation in its operation. It would be the principle interface with the respondents, maintaining records parallel to those already envisaged in the CANJUS Input Identity System, such as maintenance of Acquisitions and Subscriptions (see Figure 2).

The Cataloguing Unit would be alert to identifying new sources of information, involving both published and unpublished data. It would likely interface with other reference centers and libraries to determine their holdings, for the information of the Referral Service. It would subscribe to journals and keep in touch with publishing

houses, being the responsibility center for obtaining the Agreements to Publication discussed in Section 3.2, and resolving any copyright concerns.

The principle source of documents acquired by the Cataloguing Unit would, of course, be from the operating agencies of the Canadian Criminal Justice System that generate data sets on their activities. All acquisitions would be processed in accordance with established standards set forth in the Manual of Operation Procedures compiled during the initial stage of the JUSTATS Center development and amended from time to time as necessity dictated.

The Cataloguing Unit would be the logical location for ultimate responsibility for two of the user services - the Notification Service and the Hard Copy Reference Service. The Notification Service would, in large measure, reflect output from the acquisition function, supported by the data base.

A Hard Copy Reference Service could involve user access to the Hard Copy Repository retained in the Cataloguing Unit.

It is from the Cataloguing Unit that the Referral Service Unit would obtain its documentation for initial indexing according to the Keyword Index content discussed in Section 3.5.

5.3 The Referral Service Unit

The home of the Referral Specialist, the Referral Service Unit would be the Center's main thrust so far as subject matter expertise on Police, Courts, and Corrections is concerned. They would have two roles that are essentially complementary - that of indexing and abstracting, and then advising users of available documents and possible sources elsewhere. Both functional areas necessitate a well integrated knowledge of the numerous facets of the Criminal Justice System, their inter-relationships and how they operate at both the official and unofficial levels. This knowledge would be especially important in the annotation and abstracting operations, to identify limitations on the validity and reliability of data set contents and operational constraints etc., related to data element definitions.

It is anticipated that the Referral Service Unit would receive heavy subject matter expertise support from the Technical Unit so far as documents in the data processing file of the data base are concerned. For example, standards for data processing may often require interpretation in the context of systems already operational to identify areas of commonality and determine strategies for introducing greater uniformity.

JUSTATS Center Indexing and Abstracting Guidelines would be incorporated in the Manual of Operating Procedures, identifying the tools used, the procedures and criteria to be employed. It is, for example, anticipated that the abstracts written by authors may not suffice for JUSTATS Center users, being mindful of the user's particular emphasis on the quantitative content of such published materials.

Aside from being well acquainted with the Criminal Justice System, and the JUSTATS Center Data Base and Keyword construction, the Referral Specialist would be articulate and, in dealing directly with users, diplomatic and well versed in social skills. It is in the latter role that he becomes a useful interface between the Center and the user, appreciating the problems and biases of both. In this context, user interest could be cultivated and useful feedback received on user attitudes and needs at the operational level to complement the contribution of the Advisory Committee.

5.4 The Operations Unit

The Operations Unit would reflect a broad range of skills. It would, for example, be the logical source of content for the Manual of Operating Procedures since it would

be intimately associated with the activities within each of the other units through, among other contacts, its central position in having ultimate responsibility for the Publication Service. In respect to this service, the operations unit would be responsible for the quality of the final product, the content of which would have largely been prepared in other units.

Like the Referral Service Unit, the Operations Unit would also have contact with the users, although in an administrative context rather than as a direct service. It would, for example, be responsible for initial entry to the User File within the data base for user registration, and for all updates following changes of address, etc.

Responsibility for the final publication product would involve skills in graphics, text-editing, word processing and preparation of camera-ready material. Much of the publication content would be generated by the data base directly, to be augmented by Introductory Notes, Appendices and so forth largely written within the Referral Service Unit in view of the required subject knowledge.

Finally, the Operations Unit would provide records management knowledge for the Center's administrative needs and exercise responsibility for packaging and despatching data set materials, correspondence, etc.

5.5 The Technical Unit

The Technical Unit would be the principle interface between the data base described in Section 3.4 and the Center. In this regard, it may be recalled that it was anticipated that the data base would be held outside the Center on a time-sharing basis and it follows, therefore, that a large proportion of the Technical Unit manpower might be obtained through contract with the computer service organization involved.

The Technical Unit would also exercise responsibility for forms management and maintenance of a system's approach in the overall management of the JUSTATS Center's operation. It would remain alert to problems identified by users to the Referral Specialists and identify means through which they could be overcome. The Unit would also be the location for analysis and distribution of the Center's management statistics generated as a bi-product of the total data base activity.

Proposal 20. That the JUSTATS Center would have an administrative head to be known as the Executive Director and be comprised of four functional units -

Cataloguing, Referral Service, Operations,
and Technical.

5.6 The Advisory Committee

Sensitivity to user needs remains a high priority in a service-oriented organization, and in this the JUSTATS Center would be no exception. To complement liaison at the operational level as discussed in Section 5.3, it would also be useful to have input at the policy level to advise the Center on its overall goals and ensure that it is given the opportunity to operate effectively. The Advisory Committee would also be a medium for making understood among users the Center's position in relation to any issue areas.

The Advisory Committee would act in concert with whatever structure is agreed upon to ensure continuity in federal/provincial contacts in the Criminal Justice statistics environment, and its advice would be compatible with the overall objective of such a structure. It could, perhaps, be a sub-committee of the main committee, with the Executive Director of the JUSTATS Center serving as an ex-officio member.

Proposal 21. That there would be an Advisory Committee for the JUSTATS Center representative of the user community, related to the overall structure to promote federal/provincial statistics liaison, and on which the Center's Executive Director would serve as an ex-officio member.

5.7 Costs, Funding and Preliminary Budget

The opening statement of this study was that it is concerned with economy - the economy that derives from a reference center through a reduction in duplication of effort and through the more comprehensive planning it enables the administrator to undertake. It is within this context that the costing of the JUSTATS Center should be viewed.

Proposal 22. That costs of the JUSTATS Center would be viewed within the context of cross-system economies resulting from its operation.

It is helpful to first examine the costs that would be associated with the initial developmental phase of the JUSTATS Center and, secondly, to examine the broader-based expense that would be involved once the user services were underway to the fullest extent, mindful of the considerations listed in Section 5.1.

Based on the staffing suggested in Proposal 19, the following expenses might be anticipated during its pre-service existence:

Salaries - Executive Director	\$20,000	
- Manager of Technical Services	\$15,000	
- Clerk	\$ 8,000	
- Secretary	\$ 7,000	\$50,000
Fringe Benefits at 20% of salaries		<u>\$10,000</u>
Sub-Total		\$60,000
Travel		\$ 5,000
Space Rental		\$ 2,000
Printing and Office Supplies		\$14,000
Data Base Development and Testing		\$15,000
Contingencies		<u>\$ 3,000</u>
TOTAL		\$100,000 per year

The extent to which such an expenditure would become a reality to be met by those directly concerned with the evolution of the JUSTATS Center would, in large measure, depend upon the Center's organizational location. This latter matter is addressed fully in Section 6.2.

Suffice at this point to indicate that development of the JUSTATS Center as a non-profit, non-government institution or Council would likely involve exposure to the full range of disbursements. Alternative locations, such as within an already existing government organization, would offset those expenses relating to fringe benefits, space rental, printing and contingencies as they might already have been met to a significant extent by the existing budgets, and could be accommodated by internal changes in priority.

Proposal 23. That an annual expenditure of up to \$100,000 would be anticipated during the developmental, pre-service period of the JUSTATS Center, dependant upon its organizational location.

Once operational status were achieved, with services underway as discussed in Section 5.1, the costs

involved would necessarily be a function of the extent and scope of the services and the workload they represent. In this connection, the experience of the National Criminal Justice Reference Service (NCJRS) in Washington might offer a guideline.

At the same time, the NCJRS has a staff of some 50 persons, has a data base holding about 7,500 documents (with 500 added each month) and approximately 20,000 registered users.

A most gross approximation of total annual expenses associated with its operation is between three million and five million dollars a year. At the same time, it should be noted that it offers a Selective Notification of Information Service (SNI) which is a substantial financial commitment. In addition, distribution of all its holdings free of charge, which involves a minimum expenditure of \$100,000 a year for the purchase of these materials with no prospect of recovery in financial terms, although the return in terms of improved communication and understanding have proved substantial.

From the foregoing, it may be seen that a mature operation of the scope outlined in the above paragraphs and organized as indicated in Figure 1 might represent an

expenditure in the region of \$1,000,000 a year. This estimate, again, would be cognizant of the implications of organizational location, and might be reasoned as follows:

Assume:

- (1) that NCJRS costs \$4,000,000 per year;
- (2) that the JUSTATS Center and NCJRS programs are roughly comparable, except that NCJRS has an appreciably larger workload, operates a selected notification of information service, and purchases material for distribution without charge;
- (3) that SNI costs NCJRS \$50,000 per year and materials purchased costs NCJRS \$100,000 per year;
- (4) that differential man-years reflect differential work-loads.

Then:

$$\begin{aligned} &\text{Cost of JUSTATS Center at fullest maturity} \\ &= \quad \$ \left(\frac{14}{50} \times 4,000,000 \right) - (50,000 + 100,000) \\ &= \quad \$970,000. \end{aligned}$$

There are a number of cost defrayers that might be employed:

- fees to users of the services, perhaps scaled as to whether or not they are registered users or non-members of the JUSTATS Center User Community, or according to the type of organization or interest group they represent;
- grants from large user organizations, such as the federal and provincial government departments directly involved with the administration of justice;
- grants from government agencies involved in sponsoring research, such as the Canada Council and equivalent provincial organizations.

Utility of each of such measures should be evaluated against the extent to which each would obstruct the realization of the JUSTATS Center objective and, if to a significant extent, therefore be self-defeating.

Proposal 24. That use of individual cost defrayers would be viewed within the context of the extent to which each may impede a realization of the Objective of the JUSTATS Center.

PART 6: LOCATION OF THE JUSTATS CENTER

6.1 Criteria for Location

At this point, it is useful to review the formal proposals framed so far to determine content that is relevant to the matter of where the JUSTATS Center should be located, either explicitly or as a necessary corollary of the proposal:

<u>Proposal Number</u>	<u>Implication for Location</u>
2	Timely Establishment;
3	Access to Canadian content;
4	Access to material on Police, Courts, and Corrections;
5	Operational access to the CANJUS planning model;
7(2)	Access to French-English and English-French translation facilities;
9	Access to related reference centers or clearing houses;

Proposal Number

Implication for Location

- | | |
|----|---|
| 10 | Access to an appropriate computerized information storage and retrieval system; |
| 16 | Access to printing facilities; |
| 19 | Availability of appropriately qualified staff; |
| 21 | Access by Advisory Committee to the overall structure to promote federal/provincial statistics liaison; |
| 23 | Available funding and absorption of cost. |

Proposal 25. That the JUSTATS Center would be at such a location as to facilitate: its immediate establishment; access to Canadian material on Police, Courts, and Corrections; operational access to the CANJUS planning model; access to translation facilities to enable a fully bilingual service; access to comprehensive printing facilities; access to related reference centers or clearing

houses; access to an appropriate computerized information storage and retrieval system; access to appropriately qualified staff, suitable accommodation and adequate funding; access by the Advisory Committee to the overall structure to promote federal/provincial statistics liaison.

6.2 Examination of Alternative Options

A choice between management model alternatives will also have heavy implications with respect to the location of the JUSTATS Center.

The report, A Data Clearing House for the Social Sciences in Canada, prepared for the Association of Universities and Colleges of Canada and for the Social Science Research Council of Canada, identifies the following four alternatives. Each of these will be assessed in the context of the criteria listed in Proposal 25, and also reflecting some of the considerations detailed in the AUCC/SSRC report:

1. Management by an independent non-governmental institution created for the purpose

This would be operated as a non-profit, non-governmental organization under the Canadian Companies Act. It could be financed by grants from principal users, fees to use, or both.

At the same time, there is the basic question of whether a non-government organization is an appropriate vehicle to increase communication between government organizations, which are the principal components of Canada's Criminal Justice System. Impacting on this area is the necessity to respect the requirements of government respondents in connection with the security of their data holdings. The cost implications identified in Section 5.7 pertain.

2. A Contract to an existing Canadian university to operate the JUSTATS Center

A contract - for a set period of, say, two or five years - could be signed by some component of the Criminal Justice User Community, on behalf of the total community, with a university to administer the services decided upon. One of the Centers of Criminology operated by Canadian Universities might be particularly relevant in this context.

Such an arrangement might make possible the use of the technical assistance of the university administrative and professional staffs, and to have access to computer facilities. The university might be prepared to assist in financing the JUSTATS Center, since it would be of some benefit to the university itself.

The constraints identified above concerning government interface through a non-government body are also relevant in this context. There is also the policy of the individual universities to consider. For example, the AUCC/SSRC report cited above indicates that the Institute of Behavioural Research at York University requires that "Reports generated by the project must be public (that is, not classified as secret or confidential)".

3. A Contract operation of the Center following tendering

This is, for example, the method employed by the Law Enforcement Assistance Administration within the U.S. Department of Justice, in its contract with General Electric Company to provide the services to operate the National Criminal Justice Reference Service (NCJRS), in Washington.

It would involve a bidding procedure on a contract, open to both commercial and non-commercial agencies. Again, it would be necessary for such a contract to be signed with a particular criminal justice agency, which would be responsible for policing the contract on behalf of the total user community.

Canadian General Electric Company could possibly offer a service similar to NCJRS, located within Canada.

Financially, savings on such matters as fringe benefits may be offset by a profit margin built into the contract price finally agreed upon.

4. Management by a government body

A number of government bodies are already operating reference centers or clearing house operations, no explicit mandate having been given under law for this service. The closest to such a mandate might be the Public Archives of Canada or the National Library. The National Research Council has also apparently inaugurated an Information Exchange Center which, among other things, provides statistical information on federal research funding for policy planning purposes.

Within a Criminal Justice statistics context, the Judicial Division at Statistics Canada has long offered an informal referral service to enquirers with regard to sources of available data, and the User Advisory Services Division of Statistics Canada is actively considering the introduction of a clearing house operation. The reported order of priority for the latter organization is, chronologically: Statistics Canada data first, followed respectively by other federal department data, provincial government data and, finally, data from other spheres such as the academic community. This data would relate to all subject areas of concern to Canadians.

A further resource is the CANJUS Input Identity System, of the Statistics Division, federal Ministry of the Solicitor General. This system is designed to identify and systematically record for retrieval, criminal justice data sets in essentially the form set forth in Proposal 12. It is shortly to be formally operational and is also likely to be computerized to more readily accommodate access to available input. A means of utilizing this system as a nucleus for the JUSTATS Center is detailed in Appendix 4, to exemplify modification of an already existing resource to provide the type of comprehensive reference service discussed in this paper.

Location of the JUSTATS Center in a government agency would enable the ready exchange of information directly from one government to another, without the non-government interface which might, for example, cause problems where data of varying levels of restrictiveness was involved. However, it would be necessary to ensure that, should a government body be utilized, the needs of the JUSTATS Center would not be subordinated to those for data in other than criminal justice areas, or to other agency programs altogether.

PART 7: POST-CONFERENCE CONTINUITY

7.1 Proposal for a JUSTATS Center Sub-Committee

It is essential that the momentum achieved in discussion of development of the JUSTATS Center be maintained and that immediate steps be taken - either during the conference or shortly afterwards - to define its role, location and establishment.

Proposal 26.

1. That the Conference appoint a sub-committee of whatever overall structure is agreed upon to maintain federal/provincial liaison, such a sub-committee to guide the JUSTATS Center in its role, location and establishment;
2. That the sub-committee also include such technical expertise that may be decided upon at the Conference;
3. That upon establishment of the JUSTATS Center in a developmental, pre-service phase, the sub-committee transfer its duties to the Center's Advisory Committee.

APPENDIX 1

LIST OF PROPOSALS CONTAINED IN THE STUDY

Note: The following listing is offered as a convenience to the reader in readily identifying key areas. As the proposals are not in context, this appendix is not a summary of the content of the paper.

1. That the mechanism for exchange under discussion in this paper be regarded as a reference center rather than a clearing house. (p. 8)
2. That timely establishment of a reference center be actively supported, and that, upon establishment, it would be named the Jurimetrics Source Tracing and Transmitting System (acronym JUSTATS) Center. (p. 9)
3. That the JUSTATS Center would address itself primarily to Canadian content, with referral to holdings elsewhere as necessary. (p. 9)
4. That the JUSTATS Center would give first priority attention to data sets, data elements and data systems relating to Police, Courts, and Corrections, with later attention to peripheral socio-economic areas commensurate with available resources. (p. 10)
5. That the JUSTATS Center would, along with the needs of other users, meet the input needs of the CANJUS planning model of the Canadian Criminal Justice System. (p. 11)
6. That the Objective of the JUSTATS Center would be to promote compatibility and co-ordination of effort through provision of a central reference source on information relating to numerical data and systems for Canada's criminal justice community, and to use and disseminate its reference materials to most effectively support the related needs of that community. (p. 13)

7. That the goals of the JUSTATS Center would be: (p. 13)
 - (1) To set up a phased implementation plan for its growth towards the realization of the objective through achievement of each of the remaining goals below, subject to approval by an Advisory Committee;
 - (2) To set up a computerized data base to store and enable timely retrieval in both official languages of sources of information on the following three subject areas:
 - (a) existing and proposed statistical data aggregations, tabulations, reports, analyses and research;
 - (b) existing and proposed manual, mechanical and electronic data processing systems;
 - (c) existing and proposed definitions and specifications for data elements and system components in, respectively, (a) and (b) above.
 - (3) To set up means to ensure receipt of a continuing description by members of the Canadian Criminal Justice community of their holdings in each of the three subject areas;
 - (4) To set up means to ensure that members of the Canadian Criminal Justice community are informed of the nature and location of holdings in each of the three subject areas;
 - (5) To set up a central repository for selected hard copy in each of the subject areas to supplement the data base.
8. That the respondents and users of the JUSTATS Center would be broad-based embracing government, private agencies, academia, industry and interested members of the general public. (p. 22)
9. That the JUSTATS Center would assume working relationships with other related reference centers or clearing houses, both within and outside Canada. (p. 23)

10. That the data base of the JUSTATS Center would be computerized. (p. 27)
11. That the computerized data base would consist of inventory files containing Data Set information, Data Processing System information, Data Element Definitions, System Specification information, and User information, and that it would also contain files for generation of JUSTATS Center management statistics and for publication generation based upon the inventory files above. (p. 27)
12. That retrieval capacity for data set information would be through keywords associated with subject area, geographical type, Criminal Justice System stream, fiscal year and unit of count of the data represented. (p. 32)
13. That information retrieval on data sets, in addition to the retrieval characteristics listed in Proposal 12, would consist of the following: Other keywords associated with the data set, the data set accession number, the name of the respondent (any one or more of publisher, author, agency), the respondent reference number, sales source, cost, study title, date of production, number of pages, sample size, the universe, type of data (Series/One-time, Published/Unpublished, Restricted/Unrestricted, Primary/Secondary, Preliminary or Draft/Final), an annotation and, selectively, an abstract. (p. 33)
14. That the JUSTATS Center would offer a Referral Service. (p. 39)
15. That the JUSTATS Center would provide a Notification Service. (p. 40)
16. That, commensurate with resources, the JUSTATS Center would introduce a Publication Service, comprised of the following publications: User's Manual, Keyword Index, Acquisition Bulletin, Directory of Data Base Content and Sources, Current Awareness Material and Selected Topic Digests. (p. 44)
17. That the JUSTATS Center could offer a Hard Copy Reference Service, if such a broadening of service scope was agreed upon. (p. 45)

18. That, commensurate with resources, the JUSTATS Center services could be introduced in the following order:
 - (1) Current Awareness Material (according to need, throughout);
 - (2) Hard Copy Reference Service;
 - (3) Notification Service (Acquisitions Bulletin) - manually produced;
 - (4) User's Manual;
 - (5) Keyword Index (manually produced);
 - (6) Referral Service;
 - (7) Notification Service (Acquisition Bulletin) - computer generated;
 - (8) Director of Data Base Content and Sources;
 - (9) Selected Topic Digests. (p. 47)
19. That the initial planning nucleus of the JUSTATS Center would comprise a staff of four - an Executive Director, a Manager of Technical Services, a Clerk, and a Secretary. (p. 52)
20. That the JUSTATS Center would have an administrative head to be known as the Executive Director and be comprised of four functional units - Cataloguing, Referral Service, Operations, and Technical. (p. 59)
21. That there would be an Advisory Committee for the JUSTATS Center representative of the user community, related to the overall structure to promote federal/provincial statistics liaison, and on which the Center's Executive Director would serve as an ex-officio member. (p. 61)
22. That costs of the JUSTATS Center would be viewed within the context of cross-system economies resulting from its operation. (p. 61)

23. That an annual expenditure of up to \$100,000 would be anticipated during the developmental, pre-service period of the JUSTATS Center, dependant upon its organizational location. (p. 63)
24. That use of individual cost defrayers would be viewed within the context of the extent to which each may impede a realization of the Objective of the JUSTATS Center. (p. 66)
25. That the JUSTATS Center would be at such a location as to facilitate: its immediate establishment; access to Canadian material on Police, Courts, and Corrections; operational access to the CANJUS planning model; access to translation facilities to enable a fully bilingual service; access to comprehensive printing facilities; access to related reference centers or clearing houses; access to an appropriate computerized information storage and retrieval system; access to appropriately qualified staff, suitable accommodation and adequate funding, access by the Advisory Committee to the overall structure to promote federal/provincial statistics liaison. (p. 68)
26.
 - (1) That the Conference appoint a sub-committee of whatever overall structure is agreed upon to maintain federal/provincial liaison, such a sub-committee to guide the JUSTATS Center in its role, location and establishment;
 - (2) That the sub-committee also include such technical expertise that may be decided upon at the Conference;
 - (3) That upon establishment of the JUSTATS Center in a developmental, pre-service phase, the sub-committee transfer its duties to the Center's Advisory committee. (p. 75)

APPENDIX 2

FEDERAL/PROVINCIAL CONFERENCE ON INFORMATION AND STATISTICS

CLEARING HOUSE CONCEPT

The purpose of the following exercise is to identify parameters that have already been determined for the scope of the description paper to be prepared on the clearing house concept. There are two principal source documents involved:

- (a) Joint Communiqué of the Federal/Provincial Conference on Corrections, held at Ministerial level, December 12-14, 1973;
- (b) Minutes of Federal/Provincial Steering Committee for the Conference on Information and Statistics, meeting held February 12, 1974.

John F. Townesend

March 18, 1974.

(a) Joint Communiqué

- "Federal and provincial ministers and representatives from the Yukon and the Northwest Territories responsible for corrections met ... under the chairmanship of the Solicitor General of Canada to discuss matters of common concern and to work toward closer co-ordination of effort in the field of corrections". (p. 1)

Discussion: The mandate for decisions by the conference in December would appear limited to the field of corrections.

- "The need to develop relevant and timely and compatible criminal information and statistics systems was acknowledged by ministers. It was agreed to hold a conference of officials on criminal information and statistics before next summer to discuss mutual needs and establish principles that could guide the development of compatible information systems".

Discussion: Those responsible for corrections identify the need for systems of which the content partially falls beyond their immediate sphere of responsibility, i.e., "criminal information" will also include the police and courts, at least. It is unspecified whether "criminal information" involves qualitative and/or quantitative information, and whether resource centers (such as libraries) would be included among the "information systems" between which compatibility is sought.

(b) Federal/Provincial Steering Committee

- Consensus drawn that a clearing house for information should be a priority objective of the actual conference itself, the clearing house to be concerned with information, research and statistical analyses (p. 2);
- there was general agreement that one component of the clearing house process should be a "description of different information systems" (p. 3);
- Dr. Mohr felt the clearing house should contain not only tabulated reports but also information on the basic information systems, such as the definitions, methods of collection and aggregations (p. 4);
- Ontario recognized a need for co-ordination of analysis efforts (p. 4);
- all agreed on a need to exchange information on present and new information systems (p. 4);

- agreed "that, to the extent possible, the conference should deal not only with correctional information at a federal and provincial level but also information on the courts and police where it was possible to involve those persons" (p. 5);
- Mr. Rowebottom felt we must have as interrelated an approach in the information system development as possible (p. 6);
- agreed that the provinces would attempt to draw their present and future information efforts together and to try and obtain representation from other agencies involved in the administration of justice (p. 6);
- a conference objective agreed to be "to agree upon the operation, location, and jurisdiction of a central clearing house of statistics and information systems to facilitate the communication of new information systems and proposed development of information as well as to bring together already tabulated information for common utilization through the Criminal Justice System at all levels of government" (p. 8);

Discussion: By this point, it seems to be apparent that it is quantitative information that is under discussion, although "information systems" still awaits definition and would, presumably, embrace manual, mechanical and electronic data processing systems. Moreover, it is apparent that it is the entire Criminal Justice System that is to be addressed.

- one issue area decided upon was "discussion of present and proposed methods of collection and flow of information between and within levels of government" (p. 11);

Discussion: One such method would likely be the clearing house concept.

- agreed that the Solicitor General would prepare a preliminary paper on the methods of bringing diverse agencies administering the Criminal Justice System together in order to co-ordinate their efforts (p. 18);

Discussion: Again, one method might be the clearing house.

- the discussion of a clearing house, its activities, its location and its intersection with other information and statistical groups was agreed to be prepared (p. 18);
- agreed that one of the strongest methods for general liaison and communication would be a federal/provincial committee meet regularly and discuss new developments and proposals with the provinces and the federal government.

Discussion: Such a committee might serve as a steering committee for the clearing house.

APPENDIX 3

FEDERAL/PROVINCIAL CONFERENCE ON INFORMATION AND STATISTICS

A CLEARING HOUSE FOR

CRIMINAL JUSTICE STATISTICAL SYSTEMS AND INFORMATION

INTERIM REPORT OF THE STUDY GROUP

1. OBJECTIVE OF THE STUDY

Based upon discussion at the Federal/Provincial Steering Committee meeting on February 12, 1974, the Study Group has identified the following objective for its enquiry:

To locate, accumulate and synthesize a body of relevant knowledge to facilitate preliminary discussion at the Federal/Provincial Conference on Information and Statistics of alternative models for the creation of a Clearing House for Criminal Justice Statistical Systems and Information.

2. ASSUMPTIONS RELATED TO REALIZATION OF THE OBJECTIVE

Development of the aforementioned body of knowledge is based upon the following assumptions, which also flow from the previous discussion:

- (1) That it will address, in a preliminary way, alternatives relating to the activities, operation, location and jurisdiction of such a Clearing House, as well as its intersection with other information and statistical groups;

(2) That the Clearing House would primarily concern itself with promoting compatibility and co-ordination of effort within the Canadian Criminal Justice System by providing for exchange of information in the following areas:

- (a) existing and proposed statistical aggregations, tabulations, reports, analyses and research;
- (b) existing and proposed manual, mechanical and electronic data processing systems;
- (c) existing and proposed definitions and specifications for data elements and system components in, respectively, (a) and (b) above.

3. PROPOSED SCHEDULE FOR REALIZING THE OBJECTIVE

The Study Group plans to adhere to the following schedule:

<u>Date Estimated</u>	<u>Event</u>	<u>Reporting to</u>
1. April 16	Progress Review	Federal Steering Committee
2. May 14	Progress Review	Federal Steering Committee
3. May 21	Progress Review	Federal/Provincial Steering Committee

APPENDIX 4

MEANS OF UTILIZING THE CANJUS INPUT IDENTITY SYSTEM

AS A NUCLEUS FOR THE JUSTATS CENTER

PREFACE

This appendix is offered as a model for examining the potential feasibility of alternative locations for the JUSTATS Center. It is, therefore, an academic exercise utilizing the operational environment most familiar to the author, and could be used for comparison purposes with similar reviews for other possible locations.

THE REVIEW

This review addresses itself to giving practical effect to the content of Proposal 19 - "That the initial planning nucleus of the JUSTATS Center would comprise a staff of four - an Executive Director, a Manager of Technical Services, a Clerk and a Secretary. It also reflects the budget contained in Section 5.7.

It assumes that the role of this nucleus would be to realize the Goals of the JUSTATS Center as set forth in Section 2.2 (Proposal 7). The phased implementation plan under Goal (1) would naturally address itself to examination of growth of actual services and concomitant resource needs.

Finally, this review employs the location criteria identified in Proposal 25.

<u>Location Criteria</u>	<u>Met By</u>	<u>Additional Annual Costs to Normal Operation</u>
1. Timely Establishment	*	
2. Access to Canadian Content	Proximity to (1) Federal operating agencies (2) Provincial input to CANJUS model	N/A
3. Operational access to CANJUS planning model	Already exists, by definition	N/A
4. Translation facilities	Already existing Language Glossaries and, as needed, the Translation Bureau	*
5. Printing	Printing Plant, Supply and Services Department	*
6. Related Reference Centers	Contact established with NCJRS, Ministry Library, Statistics Canada, etc.	*
7. Computerized ISR System	Broadening of planned computerization of CANJUS Input Identity System	\$5,000.00
8. Staff:		
a) Executive Director (in-lieu)	One Statistics Co-ordination Officer, already on establishment	*
b) Manager, Technical Services (in-lieu)	One Project Manager from MIS Division (already on staff)	*
c) Secretary	Contract or Man-Year	\$7,000.00
d) Clerk	Contract or Man-Year	\$8,000.00
- fringe benefits non-existent or covered		

CONTINUED

2 OF 3

<u>Location Criteria</u>	<u>Met By</u>	<u>Additional Annual Costs to Normal Operation</u>
9. Accommodation	Available	*
10. Travel Expenses	Usual facilities	*
11. Access to overall Federal/Provincial liaison structure	(Depends on nature of any such structure decided upon)	N/A
12. Contingencies	N/A	\$3,500.00
		<hr/>
		TOTAL \$23,500.00

* Nil, assuming acceptance of the project as a program priority.

APPENDIX 5

PREPARATION FOR ISSUE ITEMS 14 AND 16

FEDERAL/PROVINCIAL CONFERENCE

(Draft System Description Specifications)

Prepared by Mr. John Bialik,
Secretariat, Ministry of the Solicitor General

1. The MIS Division, of the Research and Statistics Branch in the Ministry of the Solicitor General, has been specifically assigned the issue items 14 and 16. These items cover the description of systems and the concept of a clearing house. A survey of existing and proposed systems in the criminal justice field could be considered for inclusion as a clearing house function.
2. Under the terms of the Federal Working Committee agreements, the provinces will provide the descriptions of the information systems, existing and proposed, within their own jurisdiction; while the federal agencies will provide the descriptions of information systems under their control. A tentative listing of the systems to be described by the federal agencies is outlined as Appendix B.
3. The clearing house concept will have several inputs as to what information should be included. From a systems point of view, some items that might be considered for inclusion are attached as Appendix A. The clearing house can contain detailed system documentation such as complete statements of requirements and design specifications, or simply some brief descriptive system characteristics with a referral to the controlling agency to assist those interested in detailed information.
4. The U.S. Department of Justice Law Enforcement Assistance Administration's (L.E.A.A.) Directory of Automated Criminal Justice Information Systems is a sample of one possibility for technical aspects of systems. This

document provides a listing of U.S. automated systems, a brief description of these systems, and the user and technical representatives that may be contacted for more detailed information. The items covered are listed in Appendix C. The input to the system is via a completed questionnaire and the submission of update cards. For Canadian use, the descriptions might cover manual and automated systems and, perhaps, plans for the future.

5. The need for automated systems in the Canadian Criminal Justice sphere has only recently been felt. Systems descriptions might be desirable for both manual and automated systems especially since one sound approach to automated systems development is the prior development of manual systems.
6. The benefits of the systems descriptions and the clearing house depend on all participants. The quality and usefulness to all users will depend on each individual contribution of ideas and needs in the development phase and continued co-operation in providing input during ongoing operation.

ITEMS SUGGESTED FOR INCLUSION IN A
FORMAT FOR DESCRIPTION OF SYSTEMS

A. EXISTING SYSTEMS:

Items that might be considered for possible inclusion:

1. A narrative system description that might include:
 - objective of the system - what problems was it designed to overcome or what benefit there is to be derived;
 - type of system - operating, business, statistical gathering, control (at what level);
 - what technology has been applied - manual system, mechanical aids, computer assisted:
2. An indication of who is the controlling authority.
3. What is the dependency on organizations outside own jurisdiction for input to the system (what data originates outside the organization controlling the described system).
4. What is the data collection system (what is the source of input data).
5. What uses are made of the system outputs and what privacy considerations must be observed.

B. PROPOSED SYSTEMS:

Items that might be considered for possible inclusion:

1. A narrative system description that might include:
 - what the priority of the proposed system is in relation to other proposed systems;
 - objective of the system - what problems was it designed to overcome or what benefit there is to be derived;
 - type of system - operating, business, statistical gathering, control (at what level);
 - what technology has been applied - manual system, mechanical aids, computer assisted.
2. An indication of who is the controlling authority.
3. What is the dependency on organizations outside own jurisdiction for input to the system (what data originates outside the organization controlling the described system).
4. What is the data collection system (what is the source of input data).
5. What uses are made of the system outputs and what privacy considerations must be observed.
6. Documentation status of system:
 - flow charts;
 - standards;
 - procedures;
 - resources required;
 - implementation plan and time required.

7. Estimated costs, resources required and development period (developments costs and operating costs):
8. Standards and conventions used:
 - data definitions;
 - coding standards.
9. What areas were searched for assistance in the system proposal or development (what background data on similar applications).
10. Possible provision of complete system requirements and system design specifications to central clearing house or for information exchange.

INFORMATION SYSTEMS OPERATING IN

FEDERAL AGENCIES

1. Solicitor General:
 - CANJUS;
 - Prediction Model for Canadian Penitentiary and Parole Offender Population.

2. Statistics Canada:
 - Adult Court Programme;
 - Juvenile Court;
 - Juvenile Corrections;
 - Prisons;
 - Penitentiaries;
 - Probation;
 - National Parole.

3. Canadian Penitentiary Service:
 - IDRIS (Inmate Documents and Records Information System);
 - IRS (Inmate Record System);
 - Temporary Absence.

4. R.C.M.P.:
 - CPIC (Canadian Police Information Center);
 - FPS (Finger Print Section);
 - Time Reporting.

5. National Parole Information System.
6. Law Reform Commission:
 - Data collection system for pilot projects.
7. Justice:
 - Quic/Law;
 - Cadepol project.

ITEMS INCLUDED IN SYSTEMS DESCRIPTION IN THE

L.E.A.A. DIRECTORY OF AUTOMATED CRIMINAL

JUSTICE INFORMATION SYSTEMS

State
Jurisdiction
Name of system
Code name
Agency
Population area served
Present status (of system)
Operational date
Percent completed
Cost of system
 Total project cost
 Total costs incurred
 Grant costs incurred
 Total other funds
L.E.A.A. grant funds
Other funds
Planned additions
Software
Hardware
Environment (hardware)
Interface
Documentation status
System description
Responsible agency contact
Data processing contact
System functions

APPENDIX 6

DISCUSSIONS CONDUCTED IN THE PREPARATION OF THE STUDY

The following persons have contributed facts and ideas for this study, such input being indispensable to its production:

Mr. John Bialik,
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APPENDIX 7

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