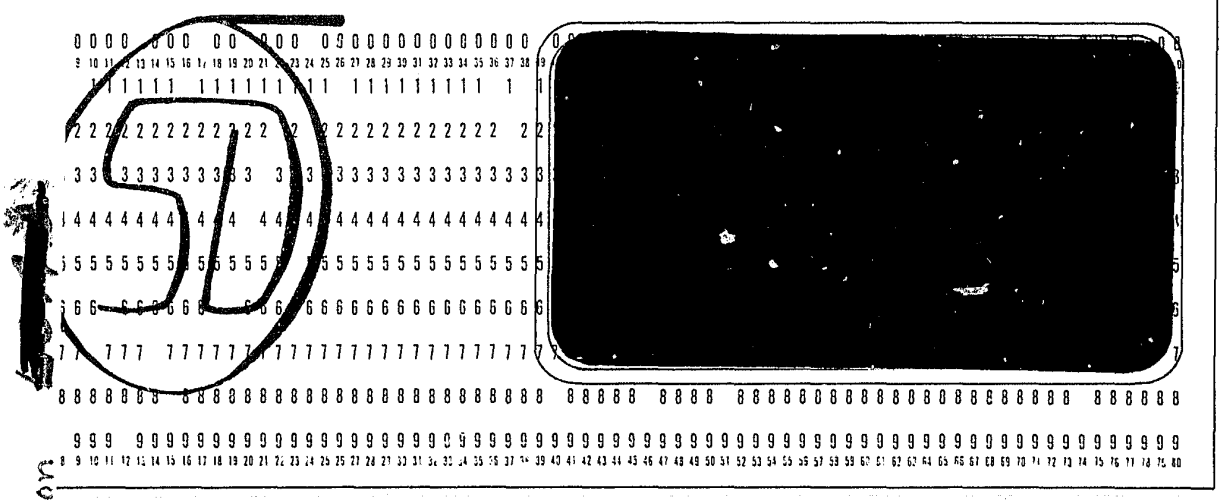

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A CANJUS PROJECT REPORT

#18

A SYSTEMS APPROACH TO PLANNING AND EVALUATION IN CRIMINAL JUSTICE SYSTEMS

by

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CANJUS PROJECT

The CANJUS project is a project being undertaken by the Statistics Division of the Ministry of the Solicitor General. The objective of the project is to develop a comprehensive simulation model of the Canadian Criminal Justice System to (1) develop a basic quantitative description of that system; (2) assist in the planning of policy and program changes by agencies involved in the administration of that system; and, (3) serve as the foundation for future analyses and research on the system. The project team at the present time consists of (alphabetically) Gordon Cassidy, Eric Connolly, Carolyn Fuller, George Hopkinson, Heather Jefferson, and John Townesend. Not all persons have been committed to the project full-time but all have made a contribution, without which, some of the many CANJUS publications would not have been possible.

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1/ Steering Committee consisting of the Ministry of the Solicitor General, Treasury Board Secretariat, Statistics Canada, Department of Justice, and the Law Reform Commission with the lead role being taken by the Ministry of the Solicitor General and resources being contributed by Treasury Board Secretariat.

ABSTRACT

The "systems approach" has been widely touted as the perspective for planning and evaluation in government. The comprehensiveness of the approach together with its flexibility has generated many supporters from the ranks of some of the more narrow discipline related approaches. However, these virtues are only as strong as the analyst that purports to use this methodology. The paper explores the approach both at a tactical level in analyzing the total criminal justice process with "systems" models and at the strategic level in dealing with the organizational environment and the planning, implementation, and evaluation of new criminal justice programs and policies.

I INTRODUCTION

The administration of justice is typically split not only among several different agencies, but among agencies at different levels of government. This is certainly the case in Canada where it is divided among at least three levels of government, federal, provincial, and municipal, while different agencies in the different levels of government are responsible for different components of the system. The actual quantitative contribution of the federal government in terms of resources to the administration of justice in Canada is undetermined, but it is known that the total direct expenditures in the criminal justice exceeds one and one half billion dollars annually, and that the federal direct contribution to this amount is substantial (see Johnson, 1973 for more detail).

As Canada has increased in population and society has become increasingly complex, more and more dissatisfaction has been expressed, not simply with the level of crime and criminality in Canada, but also with the administration of justice in Canada, the effectiveness and efficiency of its delivery, as well as the equity of the present process. Thus, an increasing priority has been on methods for better

rationalizing the allocation of resources in the criminal justice system. In the most general context this rationalization can be broken into two separate but interdependent parts:

1. The examination of new policy and programming alternatives (this is normally referred to as the planning process); and,

2. The derivation from previous policy and program experience of new areas and directions for future change (this is normally referred to as evaluation).

Naturally, planning and evaluation take place at many levels in government (see Hartle, 1972) from the operational, activity, and program levels to the policy, agency, and total governmental levels. At the operational level, the problems of resource allocation according to specified criteria require sophisticated knowledge about the operations and the knowledge of feasible ways of improving them. At the most general policy level, knowledge is needed about present programs, public preference, and objectives and goals of the society and the department themselves. Often the policy level methodologies are not as technically sophisticated (in part because of the vagueness of the

environment and the problems of measurability) but the analyses are just as complex and difficult.

To attempt to address all of these levels in one discussion is to be so general that no real progress could be made. Rather, we shall assume that we are dealing with an intermediate level of planning and evaluation, where specific knowledge of the system is necessary as well as knowledge about the politics, organizational environment, and possible means of implementation[2/].

Before doing any detailed economic, sociological or more generally analytic studies of the criminal justice system for better resource allocation, at both strategy and tactical levels, it is necessary to gather information about how the system is being operated, by whom, and to whom it is delivering its service. This has been an area in which perennially there has been very little known anywhere in North America, (both the United States and Canada) and it is in this direction that the first part of this paper is aimed. If there is nothing known about the way the system operates at present (except perhaps line budget descriptions

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2/ This is not to suggest that at any level one of these may be irrelevant, but they will certainly assume different weights at different levels (see Bend, 1972 and Jackson, 1973).

of expenditures and isolated national or local reports produced for components of the system), it becomes very difficult to do long or short-range planning. It becomes even more difficult to make an evaluation of the administration of justice to increase the number of budget allocations based on combinations of need and resource availability in the different parts of the system. What is first needed then is an organization of information about the system such that it can be more comprehensively (quantitatively) described.

Traditionally, information has been gathered about the criminal justice system at different levels and places and about different parts of the system, but this information is rarely aggregated or put into coherent comprehensive form.

One approach which is currently being used to organize information about such social processes as justice is the "system analytic" approach (see Weiss, 1972; Weiss and Rein, 1969). Essentially, this consists of identifying the stages in a process, the resources which are being dedicated to these stages, and developing an organized description of these resources and the process itself. The second section of the paper describes a specific activity to obtain a comprehensive quantitative description of the total Canadian Criminal Justice System.

Obtaining information about the present operation of the system, although a necessary first step in a planning and evaluation process, is only a first step[3/]. As Rossi, 1966; Campbell, 1969; Weiss, 1973; and Weiss and Rein, 1969 have pointed out, the development of the planning and evaluation role must take into account much additional information not only about the actual criminal justice process, but also about the programs and policies being contemplated, the organizational environment, and the needs and priorities of line personnel and the public. In the third section we discuss the expansion of the "systems approach" to take into account these factors. The paper concludes with some recommendations for the initial steps in implementing planning and evaluation and developing priorities for the future.

3/ It is interesting that the sequence of sections here not only reflects a natural expansion of the systemic perspective of the criminal justice system but in a sense represents a case history of such an expansion of perspective in the Federal Government of Canada. The initial model of the process to a large extent stimulated the examination of the "softer" areas and resulted in a more comprehensive look at planning and evaluation at the federal level of the administration of justice.

II PRESENT STATE OF THE SYSTEM

The systems model which we describe here is clearly only a first step in beginning a quantitative analysis of a criminal justice system. However, as we have said, before improving the operation of the administration of justice, it is necessary to describe the way in which that system operates at present.

The CANJUS model we describe for the Canadian system is based on the linear systems model originally developed by Blumstein and Larson, 1969[4/]. The model known as JUSSIM has been further developed by Blumstein, Belkin, and Glass, 1971 at Carnegie-Mellon University. The model provides not only a description of the flows of persons within the system, but also allows the user to incorporate cost and workload data for the different stages in the criminal justice system. In concept then, the CANJUS simulation model is quite similar to models of traffic flow in urban areas. In these

4/ Quite clearly, there are many other such models of the system which might be used. These include models of the total system such as that of S. Abraham or of such sub-systems as the police, courts, or corrections systems (see for example Hann, 1974). The JUSSIM model was selected because of its simplicity of approach (a linear mean value simulation) as well as its flexible characteristic of being able to easily incorporate better measurement of the system as well as increased detail in modelling.

computer models the analyst uses the computer to simulate cars travelling on streets in an urban network. The model is basically a device for keeping track of flows within a well-defined system together with the resources which are applied to process the flows. The following is a brief description of the simulation model.

The basic inputs consist of the following information:

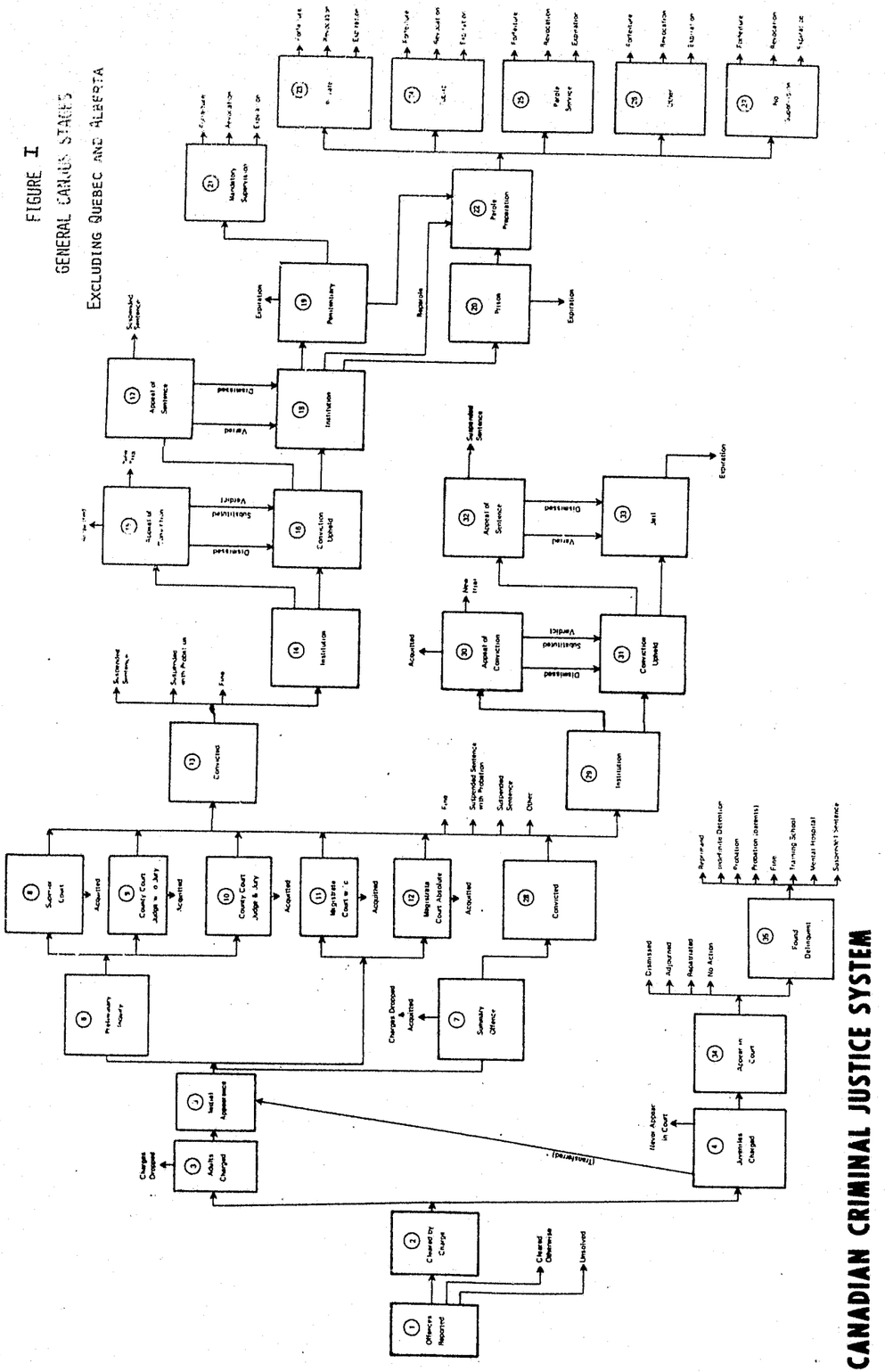
1. A set of crime types, into which the population being processed by the criminal justice system is divided. At the present time, there are twenty-one different crime types which are used in the CANJUS simulation model (see Hopkinson, 1973 (b) and Cassidy, 1973 for more detail).

2. A definition of stages in the criminal justice system. The stages presently used in the model are at a very aggregate level. They include, for example, five different types of court stages (judge and jury, judge without jury, magistrate with consent, magistrate absolute, and superior court); stages for charging an individual as well as stages for different types of sentences, penal institutions and parole. The number of stages in the criminal justice system in the CANJUS model is approximately thirty-five. Figure I gives a description of these different stages.

FIGURE I

GENERAL CANADA STATS

EXCLUDING QUEBEC AND ALBERTA

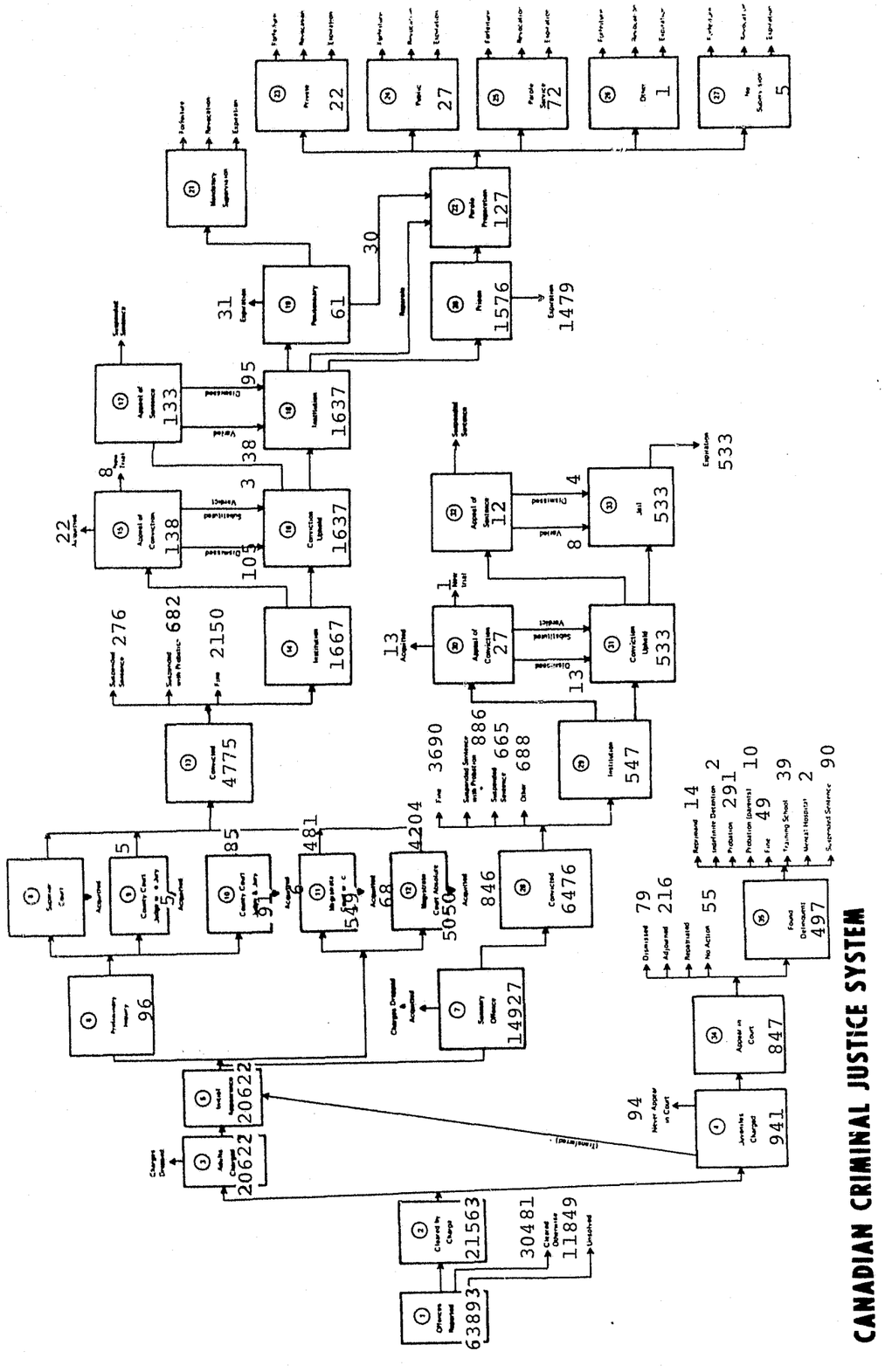


3. A set of flows of persons among the different stages in the system. These flows, within any particular crime type, describe, for example, the number of persons who, given that they were charged with an indictable offence, went to one of the courts, or, of the number of persons convicted, the number who received a suspended sentence, the number who received probation, the number who received a fine, and the number who were committed to an institution. By using the data on the different subsystems of the C.C.J.S. and making certain assumptions (Hopkinson, 1973 (b) for more detail) it is possible to compute the proportion of persons flowing among the different stages as shown in Figure 2, for all assults in 1971 in Canada (excluding Quebec and Alberta).

4. A set of resources, including police, judges, prosecuting attorneys, correctional officers, and probation officers and a set of costs for these resources per unit time. For an explanation of the problems and assumptions made in obtaining these costs see Johnson, 1973. These resources are then applied to the different stages where they participate in the administration of the criminal justice system.

5. A set of workloads, or times to process one person charged with a crime type, in the different stages of

FIGURE II



CANADIAN CRIMINAL JUSTICE SYSTEM

the system. For example, a homicide might take four judge-hours to process in a judge and jury court. Hopkinson, 1973 (a) further details the problems encountered and assumptions used in deriving these workloads (see Table 1 for a description of types of workloads).

Given these different inputs, the model uses the number of persons coming into a stage, multiplies it by the unit workload for that crime type and multiplies that by the unit resource cost to obtain the total cost for processing that number of persons in that crime type in that stage of the system. The model can also aggregate the total workload requirement over the total system (or in particular parts of the system) or it can compute the total resources required, by crime type, in parts of the system or the total system. Given that the user changes all or part of these quantities, or the actual crime rate to be processed by the system, the model then computes the changes in:

i. total cost,
ii. total resource requirements,
iii. total workloads.

TABLE 1

WORKLOADS

Workload Number	Name	Unit of Time	Resource	Stage Applied to
1	Police Report	Hour	Police	1
2	Police Arrest	Hour	Police	2
3	Magistrate: Initial Appearance	Day	Magistrate Court	5
4	Magistrate: Preliminary Inquiry	Day	Magistrate Court	6
5	Magistrate: Trial	Day	Magistrate Court	7, 11, 12
6	Judge: Bench Trial	Day	County Court	9
7	Judge: Jury Trial	Day	County Court	10
8	Superior Court: Appeal	Day	Superior Court	8
9	Superior Court: Appeal	Day	Superior Court	15, 17, 30, 32
10	Penitentiary	Year	Penitentiary	19
11	Prison	Year	Prison	20
12	Jail	Year	Jail	33
13	Parole Preparation	Case	Parole Preparation	22
14	Parole	Case	Parole	24, 25
15	Mandatory Supervision	Case	Parole	21
16	Probation Preparation	Case	Probation Preparation	Susp. Sent. Prob.*
17	Probation	Case	Probation	Susp. Sent. Prob.*
18	Juvenile Court	Day	Juvenile Court	34
19	Juvenile Probation	Case	Juvenile Probation	Probation
20	Juvenile Training School	Year	Juvenile Training School	Indef. Detention Training School

* Suspended sentence probation summary and indictable.

These can be disaggregated by stage, crime type, subsystem, or in a number of other ways (see Belkin and Blumstein, 1971 for more detail). The set of outputs can vary from very summary information on the flows in the criminal justice system to very detailed information on costs, workloads, and resource requirements.

An example of the manipulation of inputs to obtain the outputs is shown in Figure 3 for the stage, Judge, and the crime type, Robbery.

The set of inputs are then:

1. The crime type - Robbery;

2. The stage - Judge Trial;

3. The branching ratios - .4 probability of acquittal

   .6 probability of "found guilty";

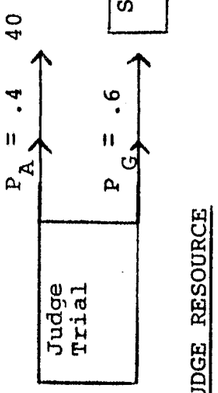
4. The resources and their associated costs, workloads, and availability -

	JUDGE RESOURCE	PROSECUTOR RESOURCE
Unit Cost	6 hours per case	9 hours per case
Unit Workload	$50/hour	$10/hour
Availability	1,000 hours	1,200 hours

FIGURE 3

ILLUSTRATIVE CANJUS ELEMENT

JUDGE STAGE FOR ROBBERY



	JUDGE RESOURCE	PROSECUTOR RESOURCE
Unit Workload (hours)	6 hours	9 hours
Unit Cost ($/hour)	$50/hour	$10/hour
Resource Workload (hours)	100 x 6 = 600 hours	100 x 9 = 900 hours
Resource Cost ($)	600 x 50 = $30,000	900 x 10 = $9,000
Annual Availability (hours)	1,000 hours	1,200 hours
Resource Requirement	600/1,000 = .6 judges	900/1,200 = .75 prosecutors
Stage Cost	$30,000 + $9,000 =	$39,000 for Robbery

5. A "reference" flow into the stage of 100 cases.

The set of relationships then give the following outputs:

1. The flows out of the stage -

   .6 x 100 = 60 cases acquitted

   .4 x 100 = 40 cases found guilty;

2. The resource workloads and costs are -

	JUDGE RESOURCE	PROSECUTOR RESOURCE
Resource Workload	100 cases x 6 hr/case = 600 hours	100 cases x 9 hr/case = 900 hours
Resource Cost	600 hr x $50/hr = $30,000	900 hr x $10/hr = $9,000

3. The resource requirement is -

   $\frac{600 \text{ hours}}{1{,}000 \text{ hours}}$ = .6 judges, and

   $\frac{900 \text{ hours}}{1{,}200 \text{ hours}}$ = .75 prosecutors

4. The total stage cost is $30,000 + $9,000 or $39,000 to process the 100 cases of Robbery in the Judge trial stage;

5. This can then be summed over all crime types for this stage and over all stages to obtain total subsystem, or system costs, resource requirements and workloads.

As we have already mentioned, the model presently includes approximately thirty-five stages with twenty-one different crime types. Flow information for eight provinces of Canada is being used and was derived from the 1970 and 1971 Statistics Canada reports, as well as from some special outputs obtained from Statistics Canada. At present, we are obtaining the flows for the provinces of Quebec and Alberta in order to make the information in the CANJUS model more complete (as well as complete flows from 1963 to 1972).

The cost information has been obtained from line agency reports and public accounts for the corrections system as well as for parts of the police and court systems. More court information is being obtained through provincial reports and public accounts as well as by survey (Johnson, 1973 for more detail).

The workloads which have been used in the court and police subsystems have included Canadian data when available, otherwise workloads derived from known similar

jurisdictions. The penitentiary system has complete Canadian workloads (in terms of number of years sentenced within different crime types). Workloads for the police and courts systems are being obtained from the actual agencies where available, and where not, by survey.

Naturally, any such quantitative systems description (or simulation) has several limitations:

1. Perhaps most important is the problem of using numbers to characterize any social process. In using any particular value, such as the number of crimes committed or the percent of persons who appear in court compared to the number of persons charged, several assumptions are made. These include:

i) Unit of Count. Whether the unit of count is cases, offences, or offenders;

ii) The conversion among these units of count. In some instances, the numbers are converted from offences to offenders;

iii) The aggregation of non-aggregatable figures. The numbers are aggregated by crime type when in fact the

system is founded upon the belief that each case is separate and must be adjudicated individually.

iv) That the figures actually represent the phenomena they purport to measure.

2. Quite often, in attempting to provide a quantitative description, the analysis must leave out many of the qualitative constraints and considerations which are inherent in the system itself. An example here is that the workloads in the courts are necessarily a lower bound and do not include the many hours spent by judges as well as other personnel thinking about, discussing, and debating issues of principle as well as specific issues related to particular cases.

3. An important consideration in the development of any quantitative analysis (based on secondary use of primary data) is that it is dependent on the present reporting systems used by the different statistical agencies.

4. One of the most important problems inherent in such a systemic approach as that described above is that there is no causal link established or implied by the analysis itself. The importance of this is that one cannot necessarily

infer that the changes which are made in one part of the system will necessarily have the impact which is exhibited by the model (as simply linear changes)[5/] in another part of the system.

It is here that an important component developed by Belkin and Blumstein, 1971 in their original systems approach to the criminal justice system has been added to allow a more indepth analysis of changes, in spite of this disadvantage. This interactive component of the model (where the user actually "plays" with the model parameters) has many benefits and will be discussed later in this section.

The model has some rather direct benefits simply as a description for policy and program planning and evaluation for many of the federal agencies in Canada. With respect to the Ministry of the Solicitor General, certainly a major component of its role would be the co-ordination and provision of a forum for communication and liaison of information system development, as well as encouraging co-operation, compatiblity, and consistency in statistics and in

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5/ This point should also be made about more sophisticated, dynamic or feedback models. They still ignore causal links simply attempting to more accurately simulate the process.

statistical analysis among provinces and the federal government. In this way, by providing much better quantitative data base as a background description of present activity within the Canadian criminal justice system, it should be able to develop better policy and programs and promote better policy and program analysis for the total system.

Statistics Canada is responsible for the collection, aggregation and publication of statistics for public information. In performing this function, this agency has a very real need for defining:

(a) the types of statistics which should be produced;

(b) their relation to other statistical information which may be available on the criminal justice system and its administration within and outside Canada; and,

(c) encouraging communication among users and collectors of statistical information.

Thus, methods or models such as CANJUS, which can bring about new directions for development of those statistics, their collection, their aggregation and their comparison with

similar statistics elsewhere, would be helpful in accomplishing this objective.

The Federal Law Reform Commission and the Department of Justice are two agencies concerned with legislative change and law reform in Canada. Within this mandate, better statistical information is both necessary and fundamental as a background description (and possible tool for measuring impact of changes) for the promotion of rational legislative planning and law reform in Canada.

The Secretariat of Treasury Board is interested in the development of better program indicators as well as effectiveness and efficiency measures for all social systems in Canada, including the criminal justice system. The furnishing of a better data base, together with possible development from that data base of better indicators is therefore a very important part of its objectives. In addition, the co-ordination of effort among departments which such a model development brings about is an important central agency objective.

The model and its manipulation however, have a very specific use in the policy planning and evaluation process. The user of the CANJUS model can, by using its interactive component, incorporate a set of new assumptions

about possible policy and program changes within the Canadian criminal justice system and then calculate the resource, cost, and flow (of offenders) implications of these changes on the administration of the system. This interactive component of the model allows the administrator or manager to quantify his intuition about how changes in one part of the system may affect other parts of the system. This then allows the analyst or the administrator to make program (or parameter) changes and assess the quantitative impact of these changes on the total system.

By "working with" the simulation model from a terminal (or other input device to a computer), the administrator becomes familiar not only with the limitations of the modelling methodology but also with its virtues and how far it can be pushed in making quantitative predictions of particular qualitative or quantitative changes within the system. He can also easily test the sensitivity of many of the programmatic changes which may be considered within the system. However, the important point which must be kept in mind is that the use of the model is only as good as the sophistication of the user. He must not only have a valid perspective of the model and its use but also must have good numerical and policy (usually more general qualitative

information) information about the present and expected future operation of the system.

An example which might be used here is the prediction of penitentiary populations in the Canadian criminal justice system. Here, it is useful to vary many factors such as crime rate, conviction rate, and parole rate, so that one can observe the impact of these parameters on the size of prison population. Thus, the user gets some "feel" or "sense" of the impact of these "parameters" on the size of the penitentiary population. A test of this use has been made and further validation in this area will be done in the future.

Apart from its descriptive benefit, the model provides a possible tool for assisting policy-planners in inputing a given set of assumptions about change to the system (derived from executive level personnel and decision-makers), and then describing the possible impact of these different assumptions on the total C.J.S. Going even further it might be possible for the decision-maker to assign his "prior probabilities" on the different possible policy changes and thereby to impute the likely impact of the new costs, resources, and flows on the Canadian criminal justice system for both short and long-range horizons.

The actual planning and evaluation of policy and program alternatives clearly involves more than a comprehensive quantitative description of the criminal justice system. The model does provide a basic background description within the context of which alternatives can be assessed by its interactive use. However, in actually carrying out planning and evaluation, many other factors must be included besides the basic quantitative tools for predicting program and policy impact throughout the total system. With this in mind, we expand the "systems model" or approach in the next section to take some of these many factors into account.

III PROCESS OF PLANNING AND EVALUATION

The dual method of rationalizing the use of resources of planning and evaluation has naturally given rise to (or has derived from) the "rational approach" to policy planning. In this paradigm the set of measurable alternatives for programs and policies are explicitly laid out, their impact assessed[6/], and the decision-maker, usually the Minister himself, selects among these alternatives based on feasibility of implementation, impact of the alternatives, as well as (his perception of) public preference.

There are some real problems with the normal "rational" approach as we have summarized it. Perhaps Tribe, 1972, has given the best general critique of this paradigm, but Weiss, 1966; Howe, 1974; Wildavsky, 1973; Rossi, 1966; and Weiss and Rein, 1969 have all brought legitimate criticisms to bear both on this concept and especially on its implementation. Some of their criticisms include:

1. This approach in many cases neglects a necessary pre-requisite to the planning and evaluation process (P & E),

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6/ Using such models as that described in section II, directly or indirectly.

the setting of general and specific (measurable) objectives and goals. The pitfall here, of course, is that many such efforts become stalled on objective setting without ever beginning the real P & E process.

2. If a fundamental objective of the government is to serve the people, then it is necessary to have public input as well as the input of line personnel and decision-makers in the actual formulation and evaluation of alternative policy and program options. These inputs would be in addition to the normal professional expertise in the policy planning and evaluation process[7/].

3. Not all the issue areas (especially policy) can be so well structured as to lay out a set of discrete and well defined alternatives for which quantitative impact can be assessed. In these cases, such techniques as the Delphi technique for bringing together a set of experts might be used.

4. Not all issues or problem areas which are in need of policy planning can be separated into their component

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7/ This has real implications for more and better consultation and attitude measurement of the public in the future. As we know, obtaining substantive input from the public is particularly difficult since both their information about, and interest in, specific parts of the C.J.S. may be minimal.

dimensions and compared dimension by dimension in terms of different alternatives. A concrete example in this instance is the difficulty of comparing institutionalization of an offender with his conditional release in the community. Compared on a component by component basis may well miss the real objectives of each option (which, if they are not different, have at least different priority in the two cases). Tribe uses the example of comparing a Picasso with a Rembrandt by looking at different colours and even combinations of colours as being clearly inadequate.

5. The rational model, although giving lip service to the process of planning and evaluation, too often ignores the actual process. In many cases this may be the most important part in determining what should or should not go on and in obtaining real support from both line professionals and the public, as well as for the planning and evaluation professionals.

6. There are at least two categories of values or value judgements which are extremely difficult to include in the rational model. These are:

i) Those at odds with human satisfaction. For example, protecting the rights of an offender who has been convicted of violating societal laws;

ii) Emotional values. For example, integrity of a neighbourhood.

Apart from the rational planning process too often trying to mask moral realities, it often does not address the value question adequately or explicitly in other value areas where assessment might be made. For example, the use of diversion on an accused but unconvicted (or untried) offender is basically a question of how much one values individual innocence before the law. However, it is rarely addressed as such.

7. Too often, policy analysis does not address the question which the decision-maker should have asked but did not. Thus, a more systematic or broader look at the actual problem than that first described is necessary in many cases.

8. The rational approach does not always answer all of the questions. Naturally, since it depends on what is basically a logical paradigm, any question which is rationally paradoxical in nature cannot be addressed or answered. Thus, logically or theoretically, a person cannot be diverted prior to trial; however, values, pragmatism and reality may well

dictate otherwise. The logical or rational paradigm must thus be expanded to include directly such value judgement.

An important consideration which must always be kept in mind in this whole paper is that the criminal justice system is above all a human system run by humans to serve human, not mechanistic ends, and that the process by which input can be obtained from both the public and line personnel (relating to the actual implementation of programs) is extremely important. We would suggest that there is not sufficient input of the public at present through the elected representatives, because of the complexity of the system itself and because of the necessary diversification of the interests and jurisdictions of any elected representative.

Although the considerations raised above are really concerned with the concept of planning and evaluation we would propose that the real problem is in the implementation. The problem of implementation has been addressed by several authors including Howe, 1974; Weiss, 1972; Rossi, 1966; and some of the more important points will be raised here.

If we are to improve the operation of the criminal justice system which, it is hypothesized, is one of

our main objectives, two necessary pre-requisites must be met. The first of these is to actually improve the system with respect to the social goals and objectives both for the society as well as for specific departmental organization and within the department (see Hartle, 1973 as well as Baily, Hann and Taylor, 1974). Secondly, it must actually effect the present behaviour of programs and policies within the criminal justice system. Thus, the four steps before actually suggesting policy and program alternatives which should be undertaken are:

A. A definition of the objectives of the total system or judicial process as well as of the agency. This could be termed the normative consideration in the planning and evaluation process.

B. A definition of existing programs and policies (as well as current evaluation efforts) within the agency. Only by explicitly describing these is it possible to then compare proposed alternatives which would change present programs and policies. This could be called the comparative component of planning and evaluation.

C. A description of problems at operational, program, and policy levels which are felt to be critical.

This is usually the stimulus to the planning process but needs the above two dimensions to provide context, both normative and comparative. (This is seen as perhaps the most important part by Hoffman, 1972; Weiss, 1972; Weiss and Rein, 1969; and Wildavsky, 1973.)

D. The relating of present and expected policy and program tools to the objectives and problems of the specific agency and the total criminal justice system. See Hartle, 1972 for more detail on the importance of these relationships and a first pass at defining some of them for the federal government of Canada.

It is important that these considerations of objective setting, the survey of existing programs and policies and definition of inter-relationships do not become an end in themselves but rather form a part of the total process. A first pass must necessarily be made in these four areas above, but it is important that the process involve continual updating of this first effort with further input of different persons into their definition.

As we have said, the planning and evaluation process consists of many levels from the social-welfare level through that of departmental organization, the departmental

objectives, the program objective, and the operational level. It is hypothesized that in the most theoretical environments it would be possible to have different levels of planning and evaluation with input from all levels to all other levels. However, this type of organization (as outlined by Hartle, 1972; and Schultz, 1968) is a goal toward which one should aim but is more long term than some of the more immediate tasks to be undertaken when the process is begun. For this reason, we will address a level[8/] concept of planning and evaluation here.

As we have pointed out, the rational model really does not go far enough, particularly for human systems. The components of the model itself are necessary <u>not sufficient</u>. The ideal types of input to a planning and evaluation process would then be at three different levels:

A. The values of the public (including Ministerial input) defining the fundamental value structure and therefore the <u>preferences</u> for alternatives and their definitions. (This is the political dimensions referred to by Weiss, 1965; and Weiss and Rein, 1969.) One important output here is the legislation produced.

8/ Meaning at least somewhat independent of level.

B. The experience and expertise of line personnel providing the information on existing programs and policies and their problems. This gives the <u>comparative</u> dimension.

C. The expertise of professionals providing <u>models</u> and <u>structure</u> and thereby contributing to the normative (and an approach to the comparative) component of the planning and evaluation process. Such models as the total system ones of the previous section provide maximum range of impact with minimum causal and organizational assumptions. Their flexibility for quick and simple evaluations of impact and the incorporation of policy information make them ideally suited as a tool of the policy analyst.

By examining alternatives and considering (both through active consultation and survey) these three different inputs, we can develop a set of policy or program alternatives within the present value structure[9/]. It must be emphasized, as Tribe, 1972 and other authors have pointed out, that the <u>process</u> of consultation and development of the evaluation

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9/ If the policy or program alternatives are not within the present value structure then either the decision-maker accepts them and cannot implement or he will not accept them. In either case, the decision-maker has not been presented with a valid set of decision alternatives.

structure (and its continual adaptation) is an extremely important "conflict resolving procedure". It is only by having active and supportive consultation in this area that the whole concept of planning and evaluation, as it is being outlined, can have any relevance to actual operations. Otherwise, the exercise becomes one of professionals talking to professionals without any real impact on line operations.

Having emphasized the over-riding importance of public and operational inputs we will concentrate on the contribution which "planning and evaluation professionals" can make. The primary consideration here should be the lack of any value inputs since the professional is employed basically with a structural or modelling objective rather than a derivation of preference (although experience may be an important component[10/]).

Given the above assumptions it would seem that professionals have at least four roles in the policy planning and evaluation process:

A. Proposing the initial structure and updating (through consultation) the evaluation process.

10/ It should be pointed out that professionals may be able to articulate and point to new and different value dimensions. This, of course, is a very valuable input.

B. Obtaining the active input of the public and line personnel.

C. Prediction of impact of the proposed policy and program alternatives as well as the structuring of these alternatives, including the use of such broad system models as that described in Section II.

D. Setting up and monitoring of a process for continuously describing the implementation of these policies and from which can be derived the evaluation after the experiment[11/] (where the experiment is the selected policy or program alternative).

It will be noticed that although the first role of the professionals is a fairly general and constantly changing role (a critical part of it is consultation), the last two are fairly specific and relate to the micro structuring for the evaluation of policy alternatives. Thus, the quantitative systems model can be used at this point.

11/ This really is modelling the policy process. It is unclear whether this process is stable or general enough to be amenable to normal OR and MS modelling techniques. Intuition would probably be that it is not.

From the initial set of alternatives, (and it must be pointed out that these are to be continually updated) one can then begin to "predict" or evaluate the impact of the various policy and program alternatives (on the three types of changes referred to earlier). This would include:

A. Value models such as sampling experts, holding seminars, using more general sociological or psychological techniques.

B. Quantitative models for making a prediction of quantitative impact on as large a universe as possible to capture total measurable systemic impact. This may include deriving causal links for prediction as well as deriving implications for better information and data.

The first part of this process is a pre-requisite to the second part since the basic value structuring and definition of policy alternatives from the existing set of professionals as well as public and line personnel must be done first.

The pre-evaluation[12/] (planning) of alternatives having been done, it will usually only predict changes

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12/ The next section briefly touches on some of the quantitative constraints for planning and evaluation. It is included to acquaint the reader with some of the problems involved in actually implementing planning and evaluation. A better and more comprehensive discussion can be found in Weiss, 1966; Weiss, 1972; Rossi, 1966; and Campbell, 1969.

on the institutions and the process. As Weiss and Rein, 1969 have pointed out, a much softer approach is needed to predict the changes in values. (An example might be the stability of punishment in a society.) Only after this has been done can a specific monitoring mechanism be instituted. There are several types of experimental models which can be used for the implementation of the policy or program and these should be examined in some depth so that the benefit of the quantitative systems model can be maximized. See Campbell, 1969 and Rossi, 1966 for more detail on available and implementable models.

IV IMPLEMENTATION OF PLANNING AND EVALUATION

The conceptual development which we have made can certainly define a general direction in which the planning and evaluation process must go but the actual implementation needs of such a process or its real function bring forward many other considerations. Some of these factors or constraints are touched upon in Cassidy, 1974 as well as other references (particularly Weiss, 1972, 1973; Bend, 1970; Graecen, 1974; Hoos, 1974; and Rossi, 1966) mentioned earlier and include:

a. The need for standards or guidelines in the planning, implementation, and evaluation. It is only by insuring that the program or activity follows certain standards and its planning and evaluation satisfies certain requirements that the kind of input which is obtained will be the most useful to planners and policy makers in the future. Otherwise, the continual adaptation of program and its evaluation will ruin any possible experimental results. See Rossi, 1966; Rivlin, 1971; and Weiss, 1972 for more detail.

b. The conflict of interests which occurs when an agency or policy body evaluates its own activities must be

scruitinized or at least have the participation of outside members from other agencies or groups.

c. There must be a realistic prior assessment of the risk of new initiatives (if this is not done by and for the public, it must at least be so assessed by the professionals). This eliminates, at least to an extent, the "answering" syndrome wherein a program is implemented in order to answer a certain crisis and fails miserably since any realistic assessment would have revealed that expectations were impossible.

Perhaps the most important category of constraints is that of the environment in which the planning and evaluation activity is to take place. Constraints here which must be considered include:

a. An assessment of the existing policies and programs, particularly with respect to which ones are controllable in the sense that either the direction may be changed or the program itself may be substantively altered.

b. The political process and the basic values of the public must be carefully considered in initiating any new

policy or program as well as in suggesting new ones. If these are not taken into consideration, as we have outlined, then the decision-maker is essentially given an artificial choice of alternatives.

c. The current problems, needs, expertise and experience of line professionals must be considered in order that the evaluation and planning activity be relevant to their interest and actually affect their activities.

As was suggested before and in the last point above, there is a high priority on having substantive communication among public, line personnel, and professionals on planning and evaluation. The communication process itself may not be formal but the importance of making and insuring that it is continuous and relevant to process, projects, and policies is important. In this connection, some constraints should be understood. These include:

a. i) It is extremely difficult to obtain substantive input of the public because of the "silent majority" problem.

ii) There must be consultation directly with line personnel, not simply with similar planning and evaluation

personnel in line agencies. Otherwise, the process becomes one of professionals talking to professionals without any substantive impact on line activities.

iii) The executives and decision-makers must be directly involved in the process.

b. The evaluations as well as the process for structuring evaluation and defining its function must be explicit and the goals and objectives which are defined must be measurable. This may be done by defining sub-objectives and specific goals for programs and activities.

The present organization also becomes a very important constraint on the kinds of planning and evaluation activities which may be undertaken:

a. The line managers in the agency will, in the future, be responsible for evaluation and planning of programs and operational activities dealing with resource allocation within the defined jurisdiction of that agency. The relating of these activities to more general criminal justice system objectives and to the objectives of the society must be done by the planning and evaluation professionals within the line

agency in conjunction with those of the overall planning and evaluation body (as well as with decision-makers and executives for the government agencies involved).

b. Indirect strategies must be used with those agencies who are not directly involved with, or responsible to, the government level being considered. Subsidies, both direct and indirect, such as expertise and capital can encourage planning and evaluation activities in those agencies and begin to relate those activities to the more general planning for, and evaluation of, the total criminal justice system.

V CONCLUSIONS

The discussion of the previous four sections leads us to certain implications for the role of professionals in planning and evaluation. The reader will remember that the role of the professional was partially defined at the end of section III and included:

1. Acting as a pressure point through communication and consultation to encourage specific planning and evaluation activities.

2. Promoting the formation (or quasi-formation) of an initial (multi-level?) planning and evaluation process to relate specifically objectives to activities.

In carrying out these roles it will be remembered that this paper itself serves as a case history. Beginning with a quantitative description of the total system, using this for a background description for proposed changes as well as allowing decision-makers to quantify their intuition; then using the interactive component and coming to a more general (and yet specific) role of the professional in planning and evaluation.

As we have stressed however, the actual implementation or expendition of these roles is both critical and non-trivial. Section IV outlined some of the most obvious pitfalls and the need for avoiding them. The need, as we have mentioned, for direct involvement and support of the line manager is perhaps the most important of these.

In beginning or modifying a planning and evaluation process we would recommend the following as a possible set of steps:

0. The development of a comprehensive jurisdictional and process description of criminal justice related specifically to the agency. This leads naturally to a more expanded description of substantive issues as:

1. A description of the present objectives, programs, policies, and problems within the agency. This should be an ongoing process with the remainder of the steps.

2. Information development in consultation with the agency. It is suggested here that one method of encouragement of communication is to ensure that all parties "talk the same language". Particularly for the more technical parts of planning and evaluation, the presentation of a course

outlining the methodologies of planning and evaluation and its broad or systemic approach has, for line managers, substantial merit for encouraging their acceptance and use of such tools. The description developed in the 0^{th} step is extremely useful at this point for focusing realistically on the agencies jurisdiction in the administration of justice.

3. Specific directed tasks such as:

i) The preparation of background papers similar to, but more agency specific than, the last part of this paper;

ii) a) Consultation on specific projects to define the exact role of planning and evaluation and how it relates to operational activities. This would also settle jurisdictional problems which may occur in defining such staff functions as planning and evaluation.

b) Experimental evaluation and planning of an agency's specific programs and projects.

4. Work with the agency itself to facilitate indirect promotion of planning and evaluation. This might include the institution of a planning and evaluation unit, possibly at several levels, but initially at only one level.

5. Promotion of further training of line managers (the critical component) in the use and abuse of planning and evaluation. This relates to the on-the-job training part of the course suggested in number two above.

This is a summary of some of the possible steps which might be used for implementation of a planning and evaluation function in an actual agency itself.

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2/73	A Preliminary Description of the Canadian Criminal Justice System Volume I	
3/73	Organization of Quantitative Approaches to the Canadian Criminal Justice System	
4/73	A Preliminary Description of the Canadian Criminal Justice System Volume II	#1
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