

A Handbook for Human-Resource Planning  
in Criminal Justice Agencies

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Volume I  
An Introduction to Agency Human-Resource Planning

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## EXECUTIVE SUMMARY

Criminal justice agencies usually allocate 80 percent or more of their resources to meeting personnel costs. Criminal justice is thus a labor-intensive field, with productivity vitally dependent on the efficient and effective employment of personnel. Human-resource planning can be an effective managerial tool for helping administrators reach decisions about how most efficiently and effectively to acquire and to employ personnel. Additionally, some aspects of human-resource planning are particularly useful in helping management to identify, to diagnose, and eventually to solve personnel problems.

This executive summary provides a brief overview of the contents and objectives of the Human-Resource Planning Handbook prepared by the School of Criminal Justice at Michigan State University. The Handbook describes numerous human-resource planning and analytical techniques useful in criminal justice agencies, gives directions for their use, and provides examples of their application in criminal justice agencies. Also, special techniques are provided to assist management in identifying, diagnosing, and eventually resolving personnel problems. The Handbook is designed to offer the criminal justice manager, personnel administrator, and planner a self-instruction guide on how to implement more effective means of planning for the agency's personnel component.

One way of visualizing the purposes and objectives behind the Human-Resource Planning Handbook is to consider the principal kinds of managerial questions that it attempts to provide answers for. A few of these questions are:

1. How can an agency examine what its personnel needs are?  
How can these needs be substantiated or documented?
2. How can an agency validly determine and define the jobs required to achieve missions, goals, and objectives?  
How can it determine whether job descriptions validly reflect the nature of work currently done in the agency?
3. How can an agency assess its current employees? How can it determine what kinds of employees should be hired (prior experience, education, training, skills, etc.)? How can employment qualifications be identified and substantiated or validated?
4. How can an agency assess its key personnel practices (for example, recruiting, selecting, training, and assigning personnel? What are the effects of these personnel practices on the agency's ability to maintain a stable supply of qualified personnel to fill the agency's jobs? What effects do current personnel practices have on employees' morale, employees' performance, and employees' attitudes?
5. How can an agency go about identifying and diagnosing personnel-related problems? What kinds of personnel

problems confront the agency? What are the causes of these problems? What kinds of effects do these problems have on agency productivity (efficiency and effectiveness)?

6. What kinds of analytical techniques are available to agency managers and planners who wish to diagnose not only existing personnel problems but also want to anticipate future personnel problems?
7. How can an agency go about identifying the major constraints posed by budget and outside decision makers that circumscribe the agency's ability to acquire needed personnel? How can an agency go about determining whether any of these constraints are manipulable--removing them as constraints in acquiring and assigning needed personnel?

The Handbook variously deals with these and other prime questions facing administrators charged with managing personnel. However, the Handbook is not prescriptive in the sense that specific solutions are prescribed for specific kinds of human-resource problems facing the agency. For important reasons that are pointed out in Volume I and in the first part of Volume II, the choice of a solution to any given personnel problem is properly the responsibility of agency management. Identifying viable solutions for problems such as turnover, or insufficient staffing, or poor employee performance must be done by management working within the constraints faced by the agency.

Nonetheless, the Handbook, its techniques for problem diagnosis, and its explanations of other human-resource planning techniques, can help point personnel administrators and planners toward discovering a range of viable solutions for agency personnel problems.

Development of the planning handbook was supported with funds from the U.S. Department of Justice (LEAA) and was conducted in two phases. Phase I assessed criminal justice agencies' current capability and need of human-resource planning. Phase II, building on this assessment, focused on the development of an extensive handbook that would assist criminal justice agencies more fully to implement and to utilize human-resource planning techniques.

#### THE HANDBOOK

The Handbook is presented in three volumes (bound in eight parts for convenience in handling and use). A comprehensive index to the contents of these three volumes follows the executive summary. Used in conjunction with the index, the Handbook has been designed to allow managers and planners to choose those portions that are of most interest or are most needed.

VOLUME I of the Handbook provides an introduction to human-resource planning in agencies--what it is, how it is carried out, and how it can help the agency manager. The material in this volume is written to be of interest alike to agency top management, to agency personnel administrators, and to agency planners. One principal objective of Volume I is for managers and planners to acquire a common overview about the definition, purposes, and uses of human-resource

planning in agencies. When managers and planners do not share such a basic understanding, planning tends not to be fully or appropriately utilized.

VOLUME II is bound in four parts and presents a means for comprehensively identifying and diagnosing personnel problems. It is designed to be of primary interest to agency personnel administrators and planners. Problem diagnosis is a very crucial and very practical part of human-resource planning. It is crucial because without good diagnosis, solutions to personnel problems cannot be adequately planned. It is practical because it focuses on what every manager spends most of his or her time doing--identifying and dealing with conditions that negatively affect the agency's ability to meet its goals and objectives.

Practical tools are presented to help personnel administrators and planners conduct two types of diagnoses. The first type is an overall assessment of agency human resources--a general stocktaking whereby the agency takes an overall look at its organizational climate, its personnel practices, and its ability to acquire, to develop, and to employ personnel. Three ready-for-use diagnostic surveys are provided with directions: 1. an Organizational Climate Survey, 2. a Personnel Practices Survey, and 3. an Environmental Factors Questionnaire.

Analysis of results from administering these surveys will provide administrators with an overview of the agency's strengths and weaknesses regarding its personnel processes and its ability to identify and to deal with internal and external factors that affect its acquisition and use of personnel. This becomes essential background information for

later attempts to identify and to solve specific personnel-related problems.

The second type of diagnostic tool presented is a step-by-step procedure that can be followed to diagnose specific personnel problems more pointedly. For example, the agency may have identified turnover, or an inability to attract qualified personnel, or poor performance by employees as problems needing special attention. Comprehensive diagnoses of the causes and effects of problems such as these is crucial if effective solutions to them are to be found. The diagnostic model provided offers a way of marshalling key agency thinkers and key information for diagnosing problems and for eventually finding solutions.

VOLUME III is bound in two parts and is a resource guide intended primarily for use by agency personnel administrators and planners engaged in the more technical aspects of personnel administration and human-resource planning. Techniques such as job analysis, forecasting, selection validation, performance measurement (to name a few) are discussed. A common format is used throughout in presenting these techniques. First, the nature of the techniques and its prime uses are presented. This is followed by a consideration of the major technical and other supports required if the technique is to be used. Special attention is paid to factors that will limit an agency's ability to use a given technique, and alternatives are presented for these situations.

## BASIC DESIGN-FEATURES OF THE HANDBOOK

**A COMPREHENSIVE INDEX:** Few users will have the time or the need to use all the material in these volumes and do everything that is recommended. A comprehensive index or catalogue of materials to be found in all of the volumes is provided. Agency administrators and planners may use this index or menu-system as a means of quickly finding the portions of the Handbook that will be of most help.

**SELF-ADMINISTRATION:** The materials have been written to optimize self-administration and self-learning, and to minimize the need for outside help. For example, the diagnostic surveys found in Volume II have been designed for administration and analysis in house. Of course, some concepts or techniques will remain difficult to grasp and will require additional reading or the use of consultants. For example, job analysis techniques discussed in Volume III are very complex and are generally out of the reach of most agencies to apply themselves without the help of outside experts. Nonetheless, the objective has been to maximize as much as possible an agency's ability to do human-resource planning using in-house resources.

**PROBLEM-FOCUSED APPROACH TO PLANNING:** With the exception of some of the sections of Volume I where many of the general concepts and ideas about human-resource planning are discussed, the Handbook is designed to help managers and planners identify and diagnose concrete personnel problems (e.g., turnover, poor employee performance, inability to attract qualified personnel, EEO and Affirmative Action suits, and so forth). The emphasis, therefore, is on dealing with specific problems

as opposed to discussing human-resource planning from a conceptual point of view alone.

VARYING LEVELS OF "BUY-IN": Agencies differ in their need for and their ability to undertake human-resource planning. Agency size, environmental constraints, money, technical expertise, and the nature of human-resource problems confronted by an agency all affect the level of planning needed and possible. Where possible, Handbook materials have been written to provide alternative levels and options in the use of planning-related analytical techniques. Thus, there are options presented--different levels and kinds of analytical activities possible. Managers and planners are free to buy in at the level deemed most feasible and valuable.

OUTSIDE CONSULTANTS: The handbook material, besides helping agencies become more informed about what can be done in-house, helps identify conditions under which outside help is needed, what should be expected of this outside help, and whom or what to look for. One central purpose has been to provide agencies with the information necessary to become more intelligent and critical consumers of work done by outside consultants. Sometimes, agencies have not been able to sufficiently direct consultants about what is needed or wanted. This has frequently been the case, for example, when agencies sought outside help in validating selection and promotional practices, or when conducting job analyses.

## WHAT IS HUMAN-RESOURCE PLANNING?

In the most general terms possible, human-resource planning is the process of determining what an agency needs to do to ensure that it has the right number and kinds of people doing the right jobs, and doing those jobs well. To accomplish this, human-resource planning is composed of two distinct yet related activities. The first activity is called WORK FORCE PLANNING, while the second is labeled STAFFING-NEEDS PLANNING.

Workforce planning analyzes the agency's need for personnel--how many and what types of people. It also analyzes the required missions of the agency, determining the kinds of jobs that need to be done, and what qualifications people who hold these jobs need. Workforce planning is crucial, for without it agency management has little firm basis on which to justify the number and kinds of personnel hired or how they are hired, assigned, and employed.

Staffing-needs planning focuses on the various personnel administrative actions involved in acquiring, developing, and assigning agency personnel. The processes and policies associated with personnel administration (e.g., recruitment, selection, training, assignment, job design, compensation, and so forth) are closely tied to human-resource planning because personnel administrative actions put human-resource plans into operation. Just as there is a need to determine what kinds and how many people are needed (workforce planning), there is a need to determine and to plan the personnel actions required to acquire, to develop, and to employ personnel (staffing-needs planning).

Human-resource planning encourages and helps direct agency managers to take a "comprehensive" approach to personnel management and to the diagnosis of personnel problems. Factors affecting the need for and the availability of agency personnel are highly inter-related. So, too, the numerous steps in the personnel administrative process are interrelated and interdependent. Human-resource planning techniques help managers and personnel administrators to consider these factors in a more interrelated and systematic way.

#### WHY ENGAGE IN HUMAN-RESOURCE PLANNING?

Anticipating future requirements for manpower in the agency and forecasting future supplies of manpower are crucial to effective personnel management. Likewise, crime trends, budget forecasts, trends in the economy, population trends and the like greatly affect the need for personnel, and they also influence the availability of personnel. Thus, knowledge of current environmental conditions and impending changes in these conditions is vital to planning agency personnel policy. Current agency personnel policies in the areas of recruitment, selection, training, and so forth, produce certain kinds of results today that may or may not be appropriate or satisfactory in the future. Knowledge of both current results and likely future results produced by agency personnel administrative practice is, thus, also important. Planning-related analytical techniques provide the agency manager with powerful tools not only to analyze present conditions and effects, but also to anticipate future conditions and effects.

Besides making forecasts, human-resource planning also focuses on diagnosing personnel problems. A problem of poor agency performance or inadequate performance occasioned by insufficient, unqualified, or poorly utilized personnel requires agency managers first to diagnose the nature of and causes of the problem, and then to plan solutions. Several planning-related analytical techniques can help the manager in both of these endeavors. Additionally, human-resource planning not only helps to diagnose current personnel problems, but also to anticipate the emergence of personnel problems.

The kinds of personnel problems that will arise in an agency are numerous, and the combination of problems nearly infinite. So too, the causes of personnel problems will vary greatly from organization to organization. When we speak of personnel problems, we include conditions such as high turnover, poor employee performance, insufficient personnel, unqualified personnel, poorly trained employees, charges of discrimination in hiring and promotion, inability to attract qualified job applicants, constraints in assigning, reassigning, and promoting employees, and so forth. The numerous analytical techniques and tools described in the Handbook provide a basis for diagnosing the nature and causes of such problems and help identify and weigh potential solutions to them.



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## VOLUME 1

### AN INTRODUCTION TO AGENCY HUMAN-RESOURCE PLANNING

Planning is a distinctly human thing to do. It appeals to common sense notions about acting rationally, but the actual processes involved in planning, especially those involved in organizational planning, are seldom clearly thought through in advance by those about to undertake planning.

Although our principal objective in the materials that follow is to consider human-resource planning in the criminal justice agency, we think it important to provide a frame of reference grounded on notions about planning in general. One thing that will become apparent as we lay this foundation is that there are several approaches and orientations to planning, each with different implications for what is actually done when planning. Our approach to human-resource planning incorporates only certain of these alternative approaches. We thus wish to point out how our approach incorporates some of the alternatives and not others.

In the pages that follow, we begin with some general notions about planning (alternative definitions, varieties, and purposes) and then follow this with related comments about human-resource planning. This in turn is followed by a discussion of our particular approach, the empirical or observational data required for it, and the analytical techniques useful in securing and analyzing data for human-resource planning. All of this should provide the reader

with needed perspective when reading and using other materials developed in this project.

A variety of terms have been used to denote the related set of activities that comprise human-resource planning. Manpower planning and work-force planning have been the terms most frequently used in the past. We have chosen the term human-resource planning, instead of manpower planning or work-force planning, because it more nearly includes the full range of planning activities that we think relevant to the planned management of agency personnel. Nonetheless, much of the existing literature uses the term "manpower planning" in roughly the same way that we use the term human-resource planning. Because we quote from the existing literature in the pages that follow, both terms will be used as rough equivalents.

The human resources of an organization have been defined as all those in the external labor market that may come to join the agency, paid and unpaid agency employees, and consultants and other service providers.<sup>1</sup> A consideration of human resources would normally include "their current levels of skill, ability, knowledge, and motivation,"<sup>2</sup> and we would take into account current and anticipated changes in these things. Thus, the concepts of human resources and manpower are not dissimilar but nearly synonymous, as the terms have come to be used.

Nonetheless, there are those who draw a distinction between manpower planning and human-resource planning, owing to the historical origins and initial limitations of the activity referred to as

manpower planning. Originally, manpower planning was limited primarily to the forecasting of labor markets and job opportunities. These forecasts were focused on predicting quantitative needs for manpower and were not qualitative predictors of needs in any detailed fashion (that is, the predictions were primarily concerned with numbers of people needed or available and only peripherally concerned with the knowledge and skills either needed or available). Some still hold that manpower planning only concerns these things and that a broader and more appropriate term covering not only such forecasting techniques, but qualitative forecasts and planning's relationship to personnel administrative processes as well, would be human-resource planning.<sup>3</sup> There is some utility in this suggestion because our impression is that there is rather widespread association of the term "manpower planning" with the limited forms of forecasting as exemplified by the U.S. Department of Labor's Occupational Jobs Forecasts. Those who subscribe to use of the term human-resource planning see it as a better catch-all phrase standing for all kinds of planning that would be relevant to the issue of organizational human resources.

#### DEFINITIONS, VARIETIES, AND PURPOSES OF PLANNING

The ability to think about the future and to consider how action taken today may affect that future, or just thinking about what the future may become is what chiefly separates man from lower animals. Thinking about the future and anticipating the need for action are central activities of planning. Collecting empirical or

observational data that help ground our thoughts in some reality is also an important part of the planning process. Thus, planning involves not only "future" thinking, but data collection and analysis as well.

The processes of planning sometimes appear so difficult and complex that planning is thrown aside and replaced with fatalistic notions like "what will be, will be." Too, crime and society's response to it is a tremendously complex issue; so thinking about it in any consciously rational sense and planning a response to it usually is hard. Complicating this is the fact that most criminal justice agencies are required to provide services and programs not strictly related to criminal events or behavior. Yet, if we ignore conscious and rational consideration of crime and organizational responses to it and also ignore planning other service and program requirements, we miss the opportunity both to anticipate and to respond to agency needs in a considered rather than a fatalistic way.

Planning's chief role can be seen as "bridging the gap" between today and tomorrow.<sup>4</sup> The act of planning is "any deliberate effort to increase the proportion of goals attained by increasing awareness and understanding of factors involved . . . ."<sup>5</sup> As such, planning is "an activity centrally concerned with the linkage between knowledge and organized action."<sup>6</sup> Put another way, planning is "the job of making things happen that would not otherwise."<sup>7</sup> Thus, when we engage in planning, we seek to control the future through current actions,<sup>8</sup> we seek to make current decisions more rational,<sup>9</sup> and we seek to think things out before taking action.<sup>10</sup>

Regardless of the particular twists that we might give to the definition of planning, common meanings emerge for the term. First, there is recognition that planning is future oriented, that it somehow links present actions to future conditions. Second, there is either implicit or explicit mention of the conscious process of gathering information in support of making assertions about cause and effect. And third, there seems to be agreement that planning is action oriented, and primarily intended to affect the real world of things rather than simply the world of ideas. This last point is aptly, if bluntly, made in a 1979 report of the National Academy of Public Administration. NAPA noted that "planning differs from academic analysis, which mainly seeks understanding, in that planning aims toward getting something done."<sup>11</sup> Many popular notions about planning closely equate it with control, and this seems most true when the subject is social or economic planning. This notion probably had more currency thirty or forty years ago<sup>12</sup> than it has today.<sup>13</sup> The idea that planning can increase efficiency and effectiveness has gained ascendancy over the simpler notion that planning is something that totalitarian regimes engage in.

Unfortunately, it can easily be assumed from what has been written that planning is everything.<sup>14</sup> Also, planning may not be easily distinguished from other thinking and analytical processes. A few of these other processes and their relationships to planning are discussed below.

## PROCESSES RELATED TO PLANNING

Decision-making processes and planning processes are closely related. Some think that planning fills a gap in decision making by "dealing with the future" and the negative repercussions of having only short-range or limited goals."<sup>15</sup> Others have noted that decision making usually involves uncertainty and that planning is an effort to reduce such uncertainty.<sup>16</sup> Yet, even though planning and decision making may be seen as intimately related, they can also be seen to differ significantly: The role of planning is to widen the range of information and choices made available for consideration by a decision maker,<sup>17</sup> while the role of decision making is to select a particular choice or alternative.

We may also see a connection between policy analysis and planning. Policy analysis is "the systematic investigation of alternative policy options and the assembly and integration of the evidence for and against each option."<sup>18</sup> Policy analysis activities can be closely allied to some of the activities involved in the planning process because one of the things a planner does is to weigh the pros and cons of alternative policies. We can note some slight differences between ideas of planning and those of policy analysis. First, policy analysis is not quite so particularly directed toward the future as is planning, and the scope of policy analysis (usually directed toward a specific policy) is normally not as broad as in planning. Planners normally give more explicit consideration to alternative future policies. In theory at least, planning includes

a dictum to think "comprehensively" about the future and about implications of action taken today.<sup>19</sup>

The relationship between planning and the activity usually identified as problem solving is also apparent. We can describe problem solving as "basically a form of means-ends analysis that aims at discovering a process description of the path that leads to a desired goal."<sup>20</sup> Put more simply, problem analysis can include the discovery and treatment of differences between what we have and what we want. The difference between what we have and what we want is the problem. Problem-analysis approaches to planning can be very useful because although we often find it hard to agree on what we want (the goals), we can often secure a lesser form of agreement that something is wrong (that we don't like what we have). Problem solving is, however, an aspect of planning rather than wholly synonymous with it--principally because planners need sooner or later to develop some consensus about the goals involved in dealing with a problem. Nonetheless, problem analysis is a very useful and crucial undertaking associated with planning.

We could well continue this line of discussion, relating planning to other processes such as programming and budgeting and to the use of various analytical techniques. However, we have probably already made the point that planning is related to several other processes. Planning is intendedly and explicitly more future-oriented, comprehensive, information-widening, and choice-widening than are many of these other related processes.

## STEPS IN PLANNING AND DIFFICULTIES IN TAKING THEM

If we look at planning simply, it can be viewed as composed of two steps: (1) the determination of ends (what we want) and (2) a determination of means for getting there. This simplistic two-step process masks the considerable complexity involved, because goals are not always easily determined or agreed to. And there are often several alternative means or ways of achieving goals--alternatives that must be weighed by some criteria--and one of them must be selected according to some criteria and implemented. Thus, the simple two-step model of the planning process needs additional detail. The eight-stage planning process presented below, termed the "modern-classical planning model," provides a more detailed picture of what the planning process is supposed to be, at least in theory.<sup>21</sup>

1. Continuously searching out and identifying goals.
2. Identifying problems (discrepancies between what we want and what we have).
3. Forecasting uncontrollable contextual changes (what will things we cannot control look like in the future?).
4. Inventing alternative strategies, tactics and actions (what are the alternative means?).
5. Simulating alternative and plausible actions and consequences (what are the various effects of the various alternatives?).
6. Evaluating alternatively forecast outcomes (which alternative means seem to give us "the most" of what we want, ending with the choice of one alternative?).

7. Statistically monitoring germane conditions (keeping data for forecast up-to-date and monitoring implementation of the chosen alternative).
8. Feeding back information to future planning, simulation and decision making.

The idea behind these steps is that in following them a planner is seen to act rationally by gathering data and by logically considering and weighing alternatives using that data. However, although apparently a logical and orderly way to plan, the eight steps are hardly easy, because there are enormous complexities and difficulties in undertaking them.

Continuously searching out and identifying goals is costly in time and money. Also, goals are often hard to define in any concrete sense (what does "providing justice" mean?), goals are not often consensually based (should corrections be punishment or rehabilitation oriented?), and goals are often conflicting (punishment-oriented goals and programs are counter-productive to rehabilitation-oriented goals and programs).

Indeed, some have noted that goals are commonly unclear and complex things, and that focusing attention on them is more likely to produce conflict than consensus.<sup>22</sup> Some have even gone further by asserting that it is impossible to achieve goal consensus on the basis of the aggregation of individual interests (e.g., discovering where people agree).<sup>23</sup> The plain fact is that people's preferences are subjective and will ordinarily differ. Thus, when we try to "identify" goals, we identify instead several alternative goals, none of which can be rationally and objectively chosen as "the"

preferred one. It is rarely ever obvious how a planner is to determine the relative importance of one goal over another.

There are also important difficulties in dealing with the remaining seven steps. For example, problem identification (step 2) would be a relatively straightforward exercise if goals were clearly known, but they usually are not. If we could agree with some specificity on what we wanted (the goal), we could better define problems as the degree to which we have failed or are likely to fail in reaching them. So too, in criminal justice, planners often are presented with fuzzy problem statements: "This agency does not efficiently use its resources," or "We are not making good parole decisions." The reality of problem identification under these less than perfect conditions is that, probably, a planner will have some vague notion of how things should be, some incomplete information about current conditions, and a sense that "things just aren't quite right." And unless the planner can take an understanding of the problem beyond local generalizations, little may be accomplished.

Forecasting the future (step 3) has not yet proved very successful,<sup>24</sup> and some thinkers caution organizations not to make decisions very far in advance of necessity.<sup>25</sup> Inventing alternative strategies (step 4) sometimes carries with it the notion that the search for alternatives should be exhaustive. Yet, the costs in time and money and the limits on human cognition often make such a search impossible. And the need to arrive at real-world decisions in a timely fashion makes it imperative that the "exhaustive"

weighing of alternatives turns into action at some point. Truly complete identification of alternatives is thus normally limited to a partial subset of all possible alternatives.<sup>26</sup>

Simulation (step 5) is also limited by cost factors and by cognitive abilities. Simulation is dependent on information about current conditions, future states, and causation; but our understanding of the real world is usually incomplete, particularly in how and why it changes. Thus, without perfect predictions, simulations about the effects that various alternatives will produce become risky.

Evaluating the alternatives (step 6) becomes most problematic in the light of incomplete goal consensus, inadequate problem identification, and incomplete identification and simulation of alternative means. "Evaluate against what criteria?" is the first question. The second question concerns picking the optimal alternative when we know that all alternatives have not been examined in the first place.

These and other problems associated with the classical steps of planning cast doubt on the idea that planning, characterized as eight logical steps, is possible at all. Clearly there are important limits to rational planning, suggesting that pure rationality is impossible and that only a limited or bounded form of rationality in planning can be taken seriously as a model. The next section considers how this limited or bounded rational model for criminal justice planning might be characterized.

## LIMITED RATIONAL PLANNING

Though we may reject the pure-rationality model because it appears impractical, we need not reject the whole idea of rationality and its role in planning and decision making. Putting it inelegantly, the objective can be to try to be as rational as possible within constraints. Some kinds of situations permit closer adherence to a rational planning process than others, but that does not alter the intent to be rational. And just because we intend for planning to be rational does not mean that it is as rational as it could be. Among other things, this means that we should stick as closely and as practicably as possible to the eight-step planning model, but how closely this process can be followed depends on the situation--on the nature of constraints imposed by time, money, decision makers, and our ability to think things through.

## GOALS AND PROBLEMS

Although we have discussed several limitations of planning in discovering purposes or goals, some idea of the goals to be attained or problems to be solved guides almost any effort at planning. The consideration of goals may only be implicit and founded on numerous assumptions, but even implicit goals and values can guide the definition of problems and the selection of means for achieving them. How do we know what our problems are unless we know what our goals are and which are threatened? For example, a police-agency planner may spend considerable time in developing an understanding of the various goals and missions pursued by the agency and thereby acquire

some reasonable knowledge about the relative priorities assigned by the agency to law enforcement (which crimes in particular), to crime prevention, and to other service missions. Knowledge of these goals and their relative priorities can help to identify the principal objectives to be pursued; and, later, this can serve as a guide for prioritizing which problems need most immediate attention, to what degree, and why. Clearly, defining goals and attempting to locate goal consensus is important. But there are often limits on our abilities to do much more than make general statements about goals from which the processes of problem definition and the discovery of alternative solutions can proceed. Problem-oriented planning can often provide additional help in making general statements about goals more explicit, concrete, and understandable. The contribution of problem-oriented planning is discussed below.

## PROBLEM-ORIENTED PLANNING

Often, the need for planning arises out of the discovery of a problem. Although the second volume of these materials discuss problem-oriented planning in great detail, we wish to make a few introductory remarks about it here.

The word problem may refer to an intricate and unsettled question, or it may refer to the difference between what we would prefer and what we have. Both meanings are applicable when considering planning's relationship to problems. The tough business of defining organizational goals is often given practical help in organizational planning when a problem is defined by the difference between

preferred states and actual states. In a way, the goal is defined as the resolving of the differences. In this kind of situation, purposive activity is undertaken (trying to solve the problem) despite the absence of clear goals. We may not agree exactly what the goal is, but we have a sense that something is wrong--that there is a problem. Planning can proceed by attempting to define the "generally perceived" problem and by locating and evaluating alternative solutions to it.

For example, we may agree that giving the public prompt service is one of the goals of criminal justice agencies--say, police and judicial agencies. Few would seriously argue that this is not a reasonable goal, but there might be considerable argument about what the goal means operationally. Does it mean disposing of all service requests or calls for assistance within a certain amount of time, and, if so, what amount of time? Problem-oriented planning can take the general goal of prompt service as a given and begin to analyze those situations that would not qualify as providing service promptly. Possibly, the problem-oriented approach to planning will be tripped by frequent public complaints about the length of time it takes to provide certain kinds of services (e.g., the amount of time involved in responding to calls for emergency services). Thus, although we may find it difficult to agree on exactly what the goal of prompt service delivery is, we may find it easier to consider what it is not--examples of instances involving tardy service delivery.

Charles Lindblom discusses a frequently occurring situation in

policymaking that seems to parallel this "problem-oriented" approach to planning. He notes that analysts and decision makers can often agree on a particular policy alternative "without their agreeing that it is the most appropriate means to an agreed objective."<sup>27</sup> That this may be a common situation, especially in criminal justice, is important to note. For example, with regard to judicial sentencing, there is considerable controversy over goals, or ends to be served. Should the primary purpose of sentencing be to punish, to rehabilitate, or deter, or to satisfy some notion of justice? Although there is great disagreement about such alternative goals, we may nonetheless come to agree that there are certain problems about sentencing and that these problems need to be treated. One such problem is sentencing disparity where, say, two extortionists in two separate cases with identical criminal histories and case characteristics receive radically different sentences: one is given probation and the other is given five to ten years in prison. At minimum, such sentencing disparity calls into question the even-handedness of justice. But more fundamentally, the problem of sentencing disparity may call our attention to basic goal dissensus. Probation might have been viewed as more conducive to rehabilitation, while the prison sentence more in keeping with punishment. Focusing analysis on the sentencing-disparity problem may lead us to understand better how alternative goals collide with one another to produce a serious threat to the basic goal of even-handed justice. We might not agree that punishment is to be valued over rehabilitation,



or vice versa, but we might find it easier to agree that uneven sentencing needs to be reduced somehow.

The idea of focusing the planning effort on problems has received considerable attention in criminal justice planning efforts:

A problem-oriented approach to planning, which relies heavily on the problem identification and analysis phase of the planning cycle, can help policymakers to formulate goals and priorities in terms that are focused on specific problems and solutions. Criminal justice planners have found it easier to galvanize cooperative efforts around problem-oriented goals and priorities rather than more abstract notions. It is easier to mobilize efforts toward the goals of reducing the number of commercial burglaries in the central city than around the more amorphous goal of "reducing crime and delinquency."<sup>28</sup>

Yet, there certainly are drawbacks to associating planning with problem solving. First, it means that planning runs the risk of being almost entirely reactive, awaiting the emergence of a problem rather than anticipating or forecasting the problem. Second, solutions generated for the identified problem may, in the absence of clearly understood organizational goals and future conditions, turn out to be shortsighted. For example, attempting to solve an employee-turnover problem through significant salary increases may later return to haunt the agency in the form of long-term and unaffordable personnel costs.

These are potentially severe shortcomings. But when the opportunity for rational planning is severely limited, it may be the only basis on which planning can take place. Furthermore, planning does have a legitimate set of functions to fill in dealing with organizational problems. These functions may be divided into three categories.

First, the planning apparatus may consist of an ongoing monitoring system with sensors set to detect emerging problems, particularly those kinds that do not readily make themselves obvious. A second part of the planning process concerns itself with defining these problems by their magnitude, cause, duration, and so forth. A third part of the planning process may be directed toward developing and recommending means for dealing with the problem. Therefore, "problem-focused" planning need not be only reactive, and it need not be shortsighted.

#### FORECASTING, GENERATING, AND TESTING ALTERNATIVES

Before turning to alternative ways of solving problems or attaining goals, the rationally oriented planner gives thought to the future. Future-oriented thinking, or forecasting, is what chiefly distinguishes planning from several other related processes such as decision making and policy analysis. Future thinking is concerned with goals, problems, and relevant conditions, and in particular with the future context. Under the limited-rationality model of planning, the forecasting step is often carried out implicitly rather than explicitly, and often concentrates on a great deal less than achieving accurate prediction. Nonetheless, explicit consideration can be given to the future under the limited model by devoting various amounts of time and resources to the following questions:

1. Are there identifiable trends (in crime, budgets, the economy, labor markets, population characteristics, etc.) that will have implications for the organization? If so, what are they and what are the probable implications?

2. What kinds of constraints and opportunities will the organization face in the foreseeable future, and how will these affect the way in which the organization functions?
3. In what way will adoption of each alternative affect the future? Will the alternative constrain available options in the future?

One way of guiding consideration of these questions is in a "problems" context whereby existing problems are examined in light of these "probable" futures, and the emergence of new problems is considered also. The validity and reliability of forecasting the future context will vary, but insofar as the future context is given some explicit treatment, problem-focused planning is not just reactionary, but is anticipatory as well. And it not only anticipates the emergence of new problems but carries an analysis of existing problems into the future as well. For example, we will not be able exactly to forecast with certainty what the agency's budget will be next year or the one after, but we are often in a position to forecast whether there are likely to be significant increases or decreases. Armed with such general budget forecasts, continuing and emerging budget-related problems can be considered.

Once some view of the future has been generated, even if it is only a limited view with limited accuracy, planning can turn to the generation of alternative solutions to problems, or alternatives for achieving goals. It is rarely true that only one course of action is available for achieving some goal or resolving some problem. Usually, if we think about it long enough, several alternatives may present themselves, each with different consequences and, thus, with

different capabilities for reaching the goal or solving the problem. As widening the choices available is a prime function of planning, so is making some estimate of which alternatives seem better than others and why.

Ideally, what we ought to do in considering alternatives is to calculate the relative costs and benefits of all potential alternatives. This can impose a tremendous burden on the planner, and there are really very few situations where the planner has the time, resources, and technical expertise to complete such a task. Indeed, Aaron Wildavsky has commented on the negative consequences of being too thorough and comprehensive in generating and testing alternatives, noting that an attempt to be too rational is in effect irrational.<sup>29</sup> It costs more and takes more time than it is normally worth. And certainly we would agree that the purpose of considering alternatives and their consequences is not to run ourselves into an analytical rat maze.

By the same token, ignoring the more feasible and effective alternatives for future actions encourages myopia. Such myopia is the antithesis of planning's intent to be as comprehensive as possible, and may be likened to the views of some administrative analysts that policymakers should seek satisfactory rather than optimal solutions.<sup>30</sup>

In the conventional ideal of a rational decision, a decision maker maximizes something--utility or want satisfaction, income, national security, the general welfare, or some other such value. But, as we have already noted, an exhaustive search for the maximum, for the best of all possible policies, is not usually worth what it costs,

and may in fact be impossible of accomplishment. An alternative strategy, therefore, is not to try too hard--to decide instead on some acceptable level of goal accomplishment short of maximization, and then pursue the search until a policy is found that attains that level. One "satisfices" instead of maximizes.<sup>31</sup>

It must be understood that an approach like this not only limits the search for the best alternatives but the goals themselves come to be pursued in a more limited fashion: The movement toward goal achievement becomes "incremental" and short, manageable steps are taken.<sup>32</sup> The original goal may be retained but its achievement is planned through a series of intermediate steps rather than through one giant step.

#### REACTIVE, ACTIVE, AND COMPREHENSIVE PLANNING

The ideal of planning is that it should be comprehensive and active. That is, all relevant variables should be taken into consideration, all consequences anticipated, future conditions accurately predicted, and action planned and implemented to anticipate that future. This is a laudible objective for planning, and one toward which, all other things being equal, we would normally strive. However, as we have shown that prediction is rarely accurate, there are often rather severe limitations on our ability to consider alternatives and consequences, and the decision to take action normally lies outside the control of the planner and within the control of decision makers and policymakers. The kind of planning normally or usually found in most criminal justice agencies is, as we might expect, reactive, and not active and comprehensive.<sup>33</sup>

There are several ways to view the meaning of reactive planning; one of the most useful is to see it as dealing with current problems. That is, planning done reactively awaits the emergence of a problem for which we then move to "plan" and to implement its resolution. This is in contrast to active planning where we more nearly anticipate the emergence of problems, and attempt to avoid or soften their consequences before they become a matter of reality. Active planning may also be seen as deliberate goal pursuit, where goals have been clearly identified and an optimal means for achieving them identified and implemented.

Reactive planning does not lack value. Certainly, there is nothing wrong with using planning strategies to resolve emergent or extant problems. And insofar as we view the existing problem comprehensively and take the future context into consideration, other aspects of planning do not necessarily suffer. Although there is a certain tainted quality to planning done purely or only on a reactive basis, reactive planning, if done properly, uses many of the same tools and analytical devices that are used in active planning. And, deliberate efforts at reactive planning may create a climate of technical experience that allows, when conditions are right, for adventures by organizations into active planning.

#### ALTERNATIVE PLANNING CONTEXTS

We have not said that rational planning is impossible, only that it is unlikely to happen exactly as the classical planning model tells us it should. And although we have noted that much planning is reactive and often disjointed, hit-and-miss, and incremental, the

question remains whether any form of rational planning is possible and practical. It is difficult to speak authoritatively on this issue because there is great variation among criminal justice agencies in how much they can undertake various forms of rational planning.<sup>34</sup> Resources (time, money, expertise, and commitment to planning) are critical inputs to any rational planning process, and how much they vary will affect how far rational planning is undertaken.

However, if we assume that decision makers have some interest in acting rationally and in planning for the future, and that they devote sufficient resources to the planning process, the degree and form of rational planning possible will depend on the clarity of goals and the knowledge available about the relationships of means and ends. Goals may be clear and known, or they may be unknown and we may be uncertain about them. Likewise, means/ends relationships may be either clear or unclear.<sup>35</sup> Four possible contexts for planning originate from these possibilities, and each is briefly described below:

1. Clear Goals and Clear Means/Ends Relationships. The opportunity for rational planning is greatest when goals are clearly known and when means/ends relationships for achieving them are clearly known. We may not and often will not have perfect knowledge about these things, but our knowledge about both may be sufficient to permit reasoned thought about the future and about alternatives that appear most likely to produce intended outcomes. For example, the level and amount of information now available concerning the

provision of counsel for impoverished defendants is probably sufficient to permit planners and decision makers at least to attempt to plan rationally in meeting the goal of free legal defense for the indigent. The goal has been successively defined by the Supreme Court, and several alternative programs have been implemented and evaluated throughout the country and exist as models of alternatives.

2. Unclear Goals and Unclear Means/Ends Relationships. The least opportunity for rational planning is probably available within this context. Using the eight-step classical planning model as a guide, we may note that almost none of the information required is available. The form of planning that results has been labeled disjointed incrementalism or "successive limited comparison."<sup>36</sup> Trial and error with small changes and little formal consideration of the future characterize this form of planning. The nature of problems, like goals, are not clearly understood, although the manager or planner may have an elusive sense about some things being wrong. The problem cannot be pinpointed or articulated, and even if it could be, there is no knowledge of proven technology that could resolve the problem. For example, and as noted by James Q. Wilson,<sup>37</sup> the Bureau of Prisons has neither clear goal consensus nor proven technology available to rehabilitate the criminal.

3. Unclear Goals but Known Means/Ends Relationships. This category is somewhat akin to problem-oriented planning as discussed earlier. Goals may be unclear or in conflict, but managers and planners have fairly clear ideas about what is wrong. Possible

alternatives for defining and addressing the problem exist, and knowledge about these is sufficient to permit planning. A good example of such a condition is turnover. Agencies find it hard to set precise goals with regard to turnover. Too little turnover may not permit enough new blood to enter the organization, while too much turnover has obvious negative consequences. Yet, even without firm "turnover goals," agencies can sense a turnover-related problem, can analyze its causes, and plan either to increase or to decrease turnover as is appropriate. This remains a limited or bounded form of planning, however, as it is problem-resolution driven rather than goal-attainment driven. With this category and the next, the opportunity for rational planning is available but to a limited degree.

4. Clear Goals but Unknown Means/Ends Relationships. In this situation, planning takes a "research-oriented" bent. The goals are clear and known but how to achieve them is not. Planning tends to focus on developing effective means of achieving goals. There are several examples of such instrumentally-focused planning, including efforts of the scientific community during the sixties to discover the means to achieve President Kennedy's goal of putting a man on the moon by the end of the 1960s. From criminal justice, there are a number of examples, including the attempt to reduce contraband flow in correctional institutions to some "tolerable" level.

These last two categories of contexts for planning, where only goals or means/ends relationships are clear (but not both), are common in criminal justice, as much as they are in other social service

fields. Thus, the planning we should normally expect to find in these fields is limited in how much it can be rational--limited by either unclear goals or unclear means/ends relationships. Yet, as we have noted previously, both problem-oriented planning and research-oriented planning have valuable contributions to make in criminal justice; the contributions may not fit the ideal of the classical planning model, but they are nonetheless useful. Problem-oriented planning done properly results in accurate problem diagnosis and, it is to be hoped, effective treatment. Research-oriented planning leads to discovering means for effectively achieving goals. More will be said about both of these orientations to planning in a subsequent section of this material.

#### SUMMARY

We have briefly addressed several issues that have to do with the general concept of planning. We have noted that planning is a future-oriented activity intended as a linkage between present action and future conditions, that it considers information about goals and the means to achieve those goals, and that it attempts some level of comprehensiveness in weighing alternative means.

We compared planning to several related processes: decision making, policy analysis, and problem solving. Although similarities were noted, we distinguished planning from all of them in its more explicit concern for the future, its comprehensiveness, and its widening of information and choices available to decision makers.

We described the eight-step modern-classical model for planning as logical and as an ideal that nonetheless has limited application because we usually lack sufficient information and technical expertise to follow it with precision. We presented the outlines of a limited rational planning model based on several assumptions about the usual environments of planning in social service agencies such as those of criminal justice. Those assumptions of environment included:

1. Agency goals are often only implicit, but when explicit, they may be unclear or conflicting. Nonetheless, even goals only implicitly understood offer guidance to diagnosing organizational problems and planning their resolution.
2. Perfect prediction of the future in any context is impossible; planning may nonetheless consider probable futures by noting likely general trends, as well as constraints and opportunities lying in the future. This may provide a satisfactory if not optimal context within which to evaluate alternative means for goal achievement and problem resolution.
3. Resource constraints (time, money, and expertise) make it exceedingly difficult to evaluate comprehensively all alternative means in order to find the optimal one. But a search for the "most promising" alternatives and an analysis of their "most likely" consequences reduces planning costs and still provides us, more often than not, with useful alternatives.
4. Situations where both goals and means/ends relationships are clearly known and understood tend to be rare. It is more usual to find clarity in only one or the other, depending on the issue being addressed. The resulting limited forms of rational planning possible in these situations (research-oriented and problem-oriented) can make valuable contributions to the attaining of organizational goals and the resolving of problems.

In the major section that follows, we turn to a consideration of human-resource planning as a particular application of general planning processes. Among other things, it will be noted that the conduct of human-resource planning suffers from the same kinds and types of limitations faced by planning in general. This will have implications for the kinds of human-resource planning subsequently described by us.

#### HUMAN-RESOURCE PLANNING AND RELATED CONCEPTS

Human-resource planning has only recently developed as a field of specific study. As with most emergent fields, its boundaries and purpose are ill-defined. What we can see is an activity encompassing many specializations, each with many ramifications.<sup>38</sup> There are, however, certain common themes that thread their way through most of the human-resource planning literature and comprise a starting point for understanding what human-resource planning is. Three such themes have been identified by a noted human-resource planning researcher, and we will begin with these.<sup>39</sup>

The first theme is statistically oriented--matching the work force's supply of people to the job-defined demand for people. The second theme is people's motivations, aspirations and expectations, on which the supply of workers for any given occupation is vitally dependent. The third is the "balance between supply and demand"--planning for the effective acquisition, development, and utilization of workers.

Dissecting these three themes, it seems clear enough that human-resource planning includes forecasting and that it affects many of the traditional personnel administrative processes of recruitment and selection, personnel assignment, employee development, employee compensation, and the like. It is also implicit that human-resource planning may be very focused, analyzing requirements and processes associated with specific agencies, companies, or with individual people. It may also be very aggregative, analyzing such things for whole occupational groupings and sets of occupational groupings nationally (e.g., police officers, prosecuting attorneys, probation officers).

At average, personnel costs account for about 85 percent of the criminal justice agency budget; thus, agency costs are vitally dependent on the efficient utilization of human-resource. And as criminal justice is a labor-intensive field, productivity is dependent on the effective utilization of personnel. Human-resource planning is a tool for helping policymakers reach decisions about the acquisition and the most effective and efficient utilization of people to accomplish agency goals and missions. By its very nature, human-resource planning seeks to prevent, to avoid, to eliminate, or to reduce organizational problems tied to issues of personnel cost and productivity. Seen in this way, human-resource planning relates to the processes of decision making, policymaking, and problem solving in the same way that we said planning in general related to these things.

One way of viewing the purposes and objectives behind human-

resource planning is to consider the principal kinds of questions it attempts to answer. Human-resource planning includes a wide-ranging set of procedures that address the principal personnel questions facing public agencies. These questions include:

1. What kinds of people and how many of them are required by an agency, now and in the future, to accomplish its missions?
2. What are the best means for recruiting, selecting, training, utilizing, and evaluating personnel, to secure the right numbers and kinds of people?
3. What is the most effective and efficient assignment and organization of workers in the agency, for maximizing productivity and attaining agency missions?
4. What are the causes of personnel problems, either current or anticipated, and what are the solutions to these problems?
5. What are the constraints posed by budgets, outside decision makers, and technical and moral limitations that circumscribe our ability to deal with these issues?

#### DEFINING HUMAN-RESOURCE PLANNING

The multiple objectives of human-resource planning can be rather succinctly summarized by drawing a distinction between human-resource planning done at the level of the economy and that done at the level of the organization.<sup>40</sup> Human-resource planning at the level of the economy is primarily concerned with planning the preparation and employment of the labor force for the jobs needed by society. Because jobs change with time (both the number and kinds of jobs required in a society), planning must be continuous, involving constant adjustments in plans and programs to bring the overall supply of people

into balance with the demands and the needs overall for people. We can also see human-resource planning at the level of the economy to involve making and implementing policy about such matters as enlarging the job opportunities available to people, improving training and education, and generally improving the use of people.

At the level of the organization we can view human-resource planning as having a similar purpose but focused on the needs of a particular organization itself.

Manpower planning in organizations is the process by which a firm insures that it has the right number of people, and the right kind of people, in the right places, at the right times, doing things for which they are economically most useful. It is, therefore, a two-phased process, by which we anticipate the future through manpower projections and then develop and implement manpower action plans and programs to accommodate the implications of the projections.<sup>41</sup>

We may observe two things about this definition of organizational human-resource planning. The first is that precious little seems to escape its purview. Insuring that an agency has the right numbers and kinds of people, and doing the right things for which they are most suited involves not only all aspects of internal agency personnel administration, but it also involves the agency's environment, particularly the labor market, the economy and budget authorities. A second observation is that this definition of organizational human-resource planning is consistent with the features of planning described in the previous section. Implicit in the definition is that the organization needs to understand its goals and missions and that it needs to understand its personnel

requirements (means for achieving the goals and missions). There is also an explicit need to consider the future and forecasts of that future. Forecasting the future is the basis for determining what kinds of steps need be taken in order to meet that future (i.e., we anticipate the future and resulting work-force needs and develop and implement plans and programs to accommodate the implications of projections).

The primary relationship examined by human-resource planners, then, is that of the supply of human resources (what is available) to the demand for human resources (what is needed). This properly involves not only present supply/demand conditions, but forecasts of these as well. The human-resource planning process must, therefore, be closely concerned with obtaining relevant information related to present and future supplies for and needs for human resources. This is a quantitative and qualitative issue (numbers and kinds of people). One way of visualizing these information needs is presented in the list below:

1. What are (will be) the goals and objectives of the organization?
2. What are (will be) the organization and work tasks necessary to accomplishing the goals and missions?
3. Who are (will be) needed to accomplish the work tasks?
  - a. What knowledge and skills should they have?
  - b. How many with each kind of skill are needed?
4. What is (will be) the inventory of human resources available?



- a. Developed inventory: People who are appropriately trained and skilled and are employed by the organization.
  - b. Undeveloped inventory: People employed in the organization but not sufficiently trained or skilled.
5. What is (will be) the gap between the numbers and kinds of people needed and those trained and available within the organization?
  6. How available are (will be) developed, developable, and undevelopable workers in the labor market? (This is a measure of the supply of "raw materials" not at present possessed by the agency.)
  7. What are the alternative means available to bridge the gap between supply and demand, gaps existing either now or in the future?

At the beginning, we referred to the fact that planning is action-oriented, that to plan without taking action based on the plan is not really planning. Item 7 above, "bridging the gap between supply and demand," is part of the action component of manpower planning. Indeed, human-resource planning properly conceived is not simply making forecasts and determining gaps between supply and demand; it finally involves the implementation of policies and programs that will address the forecast and any gaps between supply and demand. Thus, human-resource planning includes personnel management.<sup>42</sup>

The effective management of human resources must include:

Identifying manpower requirements correctly, in line with organization-wide intent; controlling flows of manpower through the organization itself and through the various job positions it contains--this probably includes most of the activities traditionally associated with personnel management, since conditions of employment, rewards, motivation, welfare, safety . . . might be interpreted as primarily designed to control this flow; developing over time the sum of skills represented in the labor force--

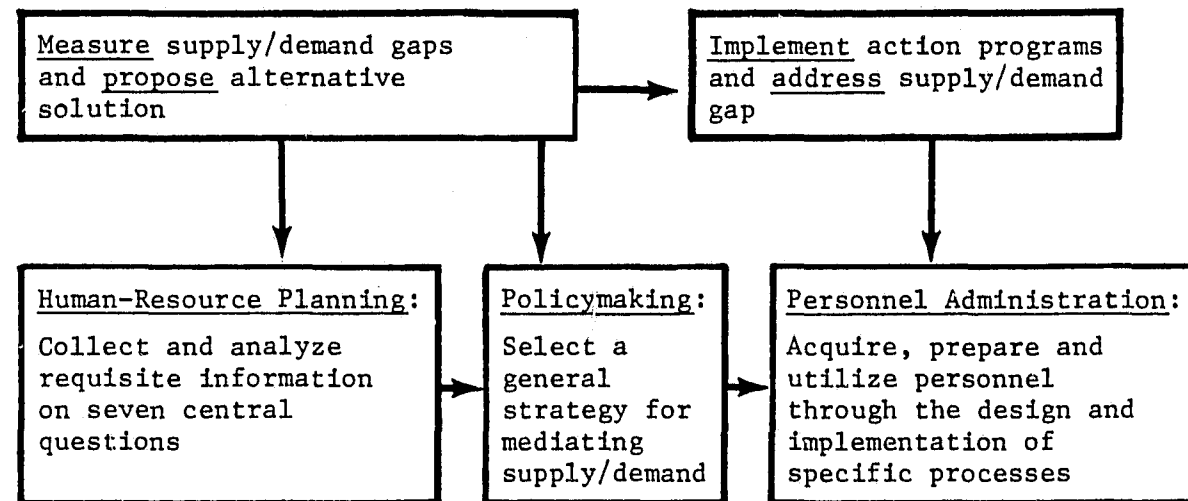
the "learning curve" effect of experience and proper individual development rather than the initial training of replacements feeding the flow of available manpower; progressively improving the adaptability and innovative power of the organization's human resources to accommodate the increasing pace of change on technological, economic and social fronts; attaining corporate goals in a manner acceptable to employees who unlike other resources have a right of veto upon organizational activity.<sup>43</sup>

## HUMAN-RESOURCE PLANNING AND MANAGEMENT

Some researchers have explicitly distinguished human-resource management and planning by noting that the former is a continuous process of adjustment within an uncertain environment, while the latter is generally taken to mean precision in forecasts and mathematical exactness in doing so.<sup>44</sup> This distinction is not very clear, but several writers have attempted to draw a distinction between planning per se and other management activity. These distinctions are worth exploring here because they may help us to understand why human-resource planning is treated so broadly in the literature.

Human-resource management is a broad concept that includes the development of policies governing the acquisition, development, and utilization of personnel and the implementation of personnel administrative processes to put those policies into force. Planning is intimately associated with both of these features of personnel management because it provides the information essential to make them work.<sup>45</sup> The essential point of this is that manpower planning and personnel administration are not removed from one another; they form a logical sequence of events as depicted in the figure below:

### THE HUMAN-RESOURCE MANAGEMENT PROCESS



As viewed in the figure above, human-resource planning and personnel administration are not subsets of one another; rather, they are conceptually related processes linked under the general heading of manpower management. Human-resource policymaking is based on planning information and is a matter of formulating broad recommendations and requirements that form the general plan of action with regard to human resources. Personnel administration also makes use of planning-derived information, but personnel administration is a matter of the implementation of policies derived from policymaking efforts. Recruitment, screening and selection, training and education, assignment and reassignment, and personnel evaluation are examples of some of the important personnel administrative practices included here.

This view of human-resource planning taken within the broader scheme of personnel management has been stated earlier by other

researchers and scholars. These researchers view manpower planning as leading to the construction of staffing plans that in turn lead to staffing and development, the measurement of organizational performance, and the production of results.<sup>46</sup> This view leads to certain suggestions about what the activities of manpower planning are:

#### Activities of Manpower Planning

1. Manpower inventory--to assess current resources (skills, abilities, and potential) and analyze current utilization of personnel.
2. Manpower forecast--to predict future manpower requirements (numbers, skills mix, internal versus external labor supply).
3. Manpower plans--to enlarge the pool of qualified individuals by recruitment, selection, training, placement, transfer, promotion, development, and compensation.
4. Control and evaluation--to provide closed-loop feedback to the rest of the system and to monitor the degree of attainment of manpower goals and objectives.<sup>47</sup>

#### ORGANIZATIONAL HUMAN-RESOURCE PLANNING

The U.S. Civil Service Commission's Bureau of Policies and Standards has addressed the issue of human-resource planning scope more directly by identifying three forms of planning activity:<sup>48</sup>

- (1) manpower-planning analysis, (2) manpower-planning programs, and (3) organizational manpower planning. The first two categories associate the term human-resource planning with labor-market forecasting (determining how many workers are needed and how many are available in whole occupational groupings) and with the development

of governmentally sponsored programs affecting work-force levels. The third category is particularly important for our purposes in this chapter because it focuses on the human-resource planning undertakings within the individual agency. All three of the Commission's categories are discussed below.

Manpower-planning analysis includes labor-force analysis that results primarily in descriptive statistics showing dimensions and components of various labor forces and how these dimensions and components have changed over time. Other aspects of labor-force analysis include analytical and projective studies that, along with related factors, forecast upcoming features of the labor force. This kind of thing is typified by the Volume I report of The National Manpower Survey of the Criminal Justice System, where a particular projective model was employed to determine the number of criminal justice personnel that will be needed in various occupational groupings five and ten years into the future.<sup>49</sup>

Manpower-planning program activity is "oriented toward the development, administration and evaluation of manpower programs."<sup>50</sup> Such manpower programs include efforts to improve the employment status of particular groups included under Affirmative Action/Equal Employment Opportunity Commission programs. Other manpower programs may be concerned with issues such as gaps in the supply and demand of manpower and may include special government-sponsored programs of training, retraining, and professional education to help close these gaps. The Law Enforcement Education Program may be viewed as an

example of a human-resource planning program instituted within and for the criminal justice system. The forty-seven state police officer standards and training councils' programs may be viewed, in intention at least, to be human-resource programs as well.

Organizational manpower planning is composed of two distinct yet related forms of planning activity. The first is dubbed "work-force planning" by the Bureau and concerns analysis of the numbers and kinds of people who are and will be needed to do the organization's work. The second activity is labeled "staffing-needs planning" and includes determination of the kinds of "future personnel management actions" that will be needed if the organization is to secure the numbers and kinds of people it needs. The methodologies involved in these two related but different functions include the following:<sup>51</sup>

Work-force planning starts with forecasts of expected work load and worker productivity. From this, estimates are derived about the numbers and types of workers needed to meet the expected work load. Thus, work-force planning uses work-load and work-measurement data and derives a "required work force" plan.

Staffing-needs planning starts with the manager's "required work-force" plan and then estimates the personnel losses and shifts likely to take place during the planning period, and then determines what future personnel management action will be needed to provide the required work force. Thus, staffing-needs planning uses mostly personnel data and produces either suggested changes in management's work-force plan or summary estimates of what must be done to provide the required work force.

There are, of course, several detailed activities that will need to be performed if work-force and staffing-needs planning are

to take place within the organization. The Bureau details these and they are presented below. As a unit, these activities largely comprise what human-resource planning includes at the organization level.

1. Information Activities

- a. The regular transmission to personnel planners and administrators of detailed data on the work-force structure established or proposed by management.
- b. The regular transmission to management of the types of personnel management and staffing-needs planning information detailed under "Work-force Planning Functions" below.

2. Analysis Activities. Provision should be made for the regular, scheduled analysis of manpower resources and personnel transactions data. This may include:

- a. Analysis of trends in the occupational, grade or skill level, and pay distribution of agency workers in various work categories, functions, and agency divisions.
- b. Analysis of the composition of the work force by such dimensions as age, sex, minority status and/or length of service.
- c. Projections of employee retirement losses and/or eligibility for retirement.
- d. Analysis of patterns and trends in outside hiring at entry and other levels.
- e. Analysis of trends in occupational advancement patterns, interoccupational flows, etc.
- f. Analysis of levels and trends of occupational and/or organizational loss rates due to quitting, transfers, occupational shifts, etc.

3. Staffing-Needs-Estimating Activities. Provision should be made for the systematic estimation of current and future staffing needs in key agency occupations or specialties. This may include such specific activities as:

- a. Analyzing the net work-force changes that will be required under management's actual or proposed work-force plans.

- b. Projecting the numbers and types of vacancies that are likely to occur because of such causes as turnover losses, death, disability, retirement, management actions, etc.

4. Work-force Planning Activities. Provision should be made for the development and the transmission to management of personnel management and staffing-needs data and analyses needed for the effective performance of work-force planning functions. This may include such data and analyses as:

- a. Detailed assessments of the feasibility of providing management's proposed work force, based on labor market limitations, the numbers of employees in the training pipeline, etc.
- b. Detailed analyses of the means necessary to staff the proposed work force (extent of outside hiring at entry level necessary, amount of employee training or retraining needed, etc.).
- c. Estimates of the direct and indirect costs of the necessary personnel staffing actions (cost of recruitment, training, employee relocation, separation and leave payments, etc.).
- d. Information on the impact of work-force cost estimates of new employee salary or pay schedules, job or occupation reclassification actions, employee grade distributions, etc.
- e. Analyses of the impact of the proposed program of staffing actions on (a) the existing work force (advancement or retention opportunities for women, minorities, handicapped, etc.) and on (b) the organization's responsibilities for implementing public policies (Equal Employment Opportunity, upward mobility, older workers, veterans, etc.).
- f. Recommendations for changes in (a) management's work-force plans (occupational or skill-level trade-offs, etc.) and/or in (b) organization personnel policies or practices (policy on outside hiring, etc.) based on the above.

5. Personnel-Program Planning Activities. Utilization of the above-described data and analyses in the establishment of operational goals and objectives for the various personnel administrative functions and in the development of personnel budget estimates.

6. Data-System Activities. Obtaining, recording, and furnishing the data needed to support staffing needs planning functions. Such systems should include specific provisions for obtaining and recording needed data on the work-force plans and proposals made by organization management as part of the work-force planning and budgeting process.
7. Evaluation Activities. Staffing-needs planning systems should make specific provisions for the regular and systematic evaluation of manpower-planning policies, procedures, and products, and of their contribution to the overall planning, budgeting, and personnel management systems of the organization.

#### APPLICATIONS OF ORGANIZATIONAL HUMAN-RESOURCE PLANNING

Planning's applications or utility in dealing with various aspects of human resources are numerous but can be viewed as largely falling within several general categories. We describe each of the categories below in terms of some of the common activities that may fall within them. The list is not exhaustive but indicative.

Forecasting Personnel Resources. Forecasts may focus on one or more of the following kinds of issues: the availability of personnel (numbers and kinds) from the labor market; the availability of numbers and kinds of personnel from within the organization; changes in the composition of the work force and the labor pool (e.g., aging, educational levels, etc.); changing work loads and resulting changes in needs for human resources within the organization; projections of employee turnover rates; and projections of employee learning curves, dependent on time and experience in the job. These forecasts may be for a short time into the future, say a year, or for longer periods, say five or ten years.

Forecasting Relevant Environmental Variables. Crime trends, budget forecasts, trends in the economy, population trends and the like will greatly influence not only the need for manpower in criminal justice agencies, but will also determine the availability of personnel and, more importantly, the conditions under which manpower will be available to the agency now and in the future. Forecasts of impending changes in these variables is thus vital to planning human resource policy in organizations.

Forecasting Effects of Personnel Practices. Established or existing human resource practices such as those involving recruitment, selection, training and development, assignment and reassignment, and compensation and motivation produce current results that may not be the same in future periods: as conditions change, so do the effects of the practices. Thus, one contribution of planning is in forecasting the likely effect of existing personnel procedures under future conditions. Also, however, planning techniques can assist in viewing the likely effects of alternative personnel practices. For example, it has often been noted that when communities go through an economic boom, the availability of qualified applicants for jobs in some criminal justice agencies decreases (e.g., to fill guard positions in correctional agencies). This will have particular implications for where and how agencies recruit and for how they train and develop the recruits they do attract.

Predicting and Projecting Human Resource Problems. A human resource problem may be defined as any situation where the gap between

the supply of personnel and the need for personnel is sufficient to endanger the organization's ability to perform its mission in an acceptable fashion. "Endanger" and "acceptable fashion" are relative terms depending on community standards and those of agency decision makers. However, planning has several distinct roles to play in dealing with such human-resource-related problems. First, planning techniques can assist in predicting problems (e.g., high upcoming turnover due to retirements). This is so because planning seeks comprehensively to examine cause (means) and effect (goals attained or problems anticipated). Second, planning can assist in identifying and weighing alternative remedies to these problems; for example, planning can help at least to identify likely consequences of altering various personnel practices, looking at their effects in addressing the gap between personnel supply and demand (e.g., early and staggered retirement plans plus early hiring of key replacement personnel).

#### Planning the Resolution of Existing Human Resource Problems.

The previous four categories have all included the words "forecasting" or "projecting" and imply that one of planning's chief contributions is looking toward the future and identifying implications for the organization. However, the term manpower planning or human-resource planning is also applicable to examining alternatives and their consequences for dealing with existing organizational problems--problems that do not need to be anticipated because they are already here. None of the existing planning literature has dealt very much

with this idea, but in our view it is a principal area of human-resource planning activity in many organizations. The next section will discuss some of the reasons for this, and a subsequent section will deal more pointedly with the features of planning's role in resolving existing agency problems.

#### REALITIES OF ORGANIZATIONAL HUMAN-RESOURCE PLANNING

What we have discussed thus far is the ideal of human-resource planning. We now turn to a consideration of how far the various aspects of human-resource planning have been applied to and have worked in organizational settings. One study of the use of forecasting techniques in firms indicated that forecasting when done in private industry is used sparingly as a basis for anticipating budget needs, redesigning training programs, or planning the redesign of jobs or plant expansion. Although this finding may be surprising to some, there are several reasons for it. One is that forecasting techniques are largely based on past trends and regularities and the projection of these into the future. These allowances often cannot be properly anticipated or known and, thus, the forecasts become erroneous. Forecasting personnel requirements is hardest when the jobs involved are managerial, professional, or technical. Many of the occupational and job groupings in criminal justice agencies fall into these managerial, professional, and technical slots, making projections about human resource needs in criminal justice agencies somewhat more problematic than what might be the case in well-established private-sector industries.

These findings are consistent with statements made earlier in the section on general planning. There it was noted that "forecasting uncontrollable contextual changes," step 3 in the classical planning model, had not often proven to be an easy or accurate undertaking for agencies. But there is also substantial evidence to suggest that the general level of forecasting activity engaged in by criminal justice agencies is limited and that criminal justice agencies oftener engage in planning the resolution of existing problems.<sup>52</sup>

This is not to suggest that forecasting and anticipatory problem solving are useless undertakings; rather it is to suggest that the environments for conducting human-resource planning in most organizations preclude these things being done easily or well. This may be especially true in criminal justice agencies where, as several observers have noted that a crisis environment often seems to pervade organizational and managerial decision making. The results of this are not only that planning efforts concentrate on disposing of the immediate problem, but also doing so in a timely fashion.

"Timely fashion" can often impose a rush to judgment on decision makers, especially if the framework of data and analytical expertise are not already in place to allow for a rationally planned and reasoned approach to understanding the problem and to finding either optimal or satisfactory solutions to it.

Most of the more advanced and analytically oriented forms of human-resource planning (such as forecasting) suffer from two difficulties: (1) the analytical techniques are not without error, and (2) normal agency environments are such to discourage their use. Actually, the reasons for low-level development and use of the more analytically-oriented planning techniques are a bit more involved than this. First, agencies have differing needs for the products of human resource planning; needs for planning analyses will also change over time within a given agency. Some of the factors influencing this are the size of the agency, the degree to which the agency and its community are and have been stable, and the degree of decisional flexibility given to agency managers to make human-resource policy based on planning analyses. Thus, an approach to human-resource planning must be flexible, rather than forcing on agencies an analytical sophistication which they do not need and are unable to use.

Second, agencies have differing capabilities and face differing constraints in undertaking planning. Capabilities for data collection, data analysis, and decision making vary greatly from agency to agency and from situation to situation. Often, and even within a single agency, capability will change rapidly, dependent on the availability of key personnel and information for performing planning functions, or on the availability of funds to support planning. Constraints are imposed not only by such internal agency factors, but also by outside decision makers and policymakers who may actively support, neglect, or oppose attempts to introduce manpower planning



into decision making. Guiding an agency through an identification of its capabilities and constraints at any given time is a prerequisite to selecting an approach to planning.

Even though the use of various analytical planning techniques will vary from agency to agency, it remains true that most agencies, if not all agencies, confront the need to undertake some form of human-resource planning. Principally, and at minimum, this means organizing planning activities around key issues or commonly occurring difficulties associated with the costs and the productivity of human resources. Some of these difficulties might include inadequate performance and productivity on the part of employees, cost inefficiencies according to some criteria, duplication of services and personnel, turnover, and many others. The resolution of these difficulties will ultimately involve one or more of the personnel administrative processes of job and task design, recruitment and selection, training, assignment, personnel evaluation, and the like.

#### STARTING POINTS FOR ORGANIZATIONAL HUMAN-RESOURCE PLANNING

Returning for a moment to the earlier section on alternative planning contexts, two of those contexts are relevant for us in finding a realistic starting point for conducting agency-based human-resource planning. The two contexts are: (1) where goals are clear but means/ends relationships are not, and (2) where goals are unclear but means/ends relationships are known. The point has been made that both of these situations preclude a fully rational approach to planning because that requires that both goals and

means/ends relationships are clear and known. However, the point was also made that these two situations are ones frequently encountered by public organizations such as criminal justice agencies. It is thus within these two contexts that development of agency-based human-resource planning has a reasonable chance of potential utility. Each of these contexts for manpower planning is considered below, and we end with some thoughts on how these two approaches might be merged into a single orientation for guiding organizational human-resource planning.

When missions and goals are clearly understood but it is not clearly understood how to achieve those goals, planning takes on a research or discovery focus. That is, planning efforts concentrate on finding the alternative means for achieving those goals or accomplishing those missions by collecting and analyzing data to determine the likely consequences of each alternative. An example may help to clarify this.

Consider the situation where a city police department is confronted with the necessity of providing services to large newly annexed areas. The goals and missions involved are fairly clear--that of providing services to the new areas. There may of course be some need for further clarity in goals, as the new areas may significantly differ from service areas already in the city (perhaps differing in population demographics, and the socio-economic characteristics of the people and the businesses of that area). These differences may require an alternative mix of police agency programs and services than that required within present city boundaries.



This, together with the need to provide services to more people over a larger area, will have obvious manpower implications. The objective of human-resource planning becomes one of discovering the means by which these goals can be achieved through having the right numbers and kinds of personnel.

The first phase of the "research" is related to work-force planning, using the previously noted terminology of the U.S. Civil Service Commission. Among other things, this involves collecting and analyzing information through mission analysis, need/demand analysis, organization design, role/task analysis and several others. Staffing needs planning (concerning the kinds of personnel management actions that will need to be taken to provide the required work force) is related to the second phase in this "research-oriented" planning. This involves consideration of the recruitment, selection, development, and assignment procedures (among others) that will permit attainment of personnel needs. Finally, both of these research-oriented planning activities must be aware of political and technical constraints imposed on the agency. For example, although new areas may have been annexed, it may not be an option of the police agency to hire significant new and "needed" personnel. Research-oriented staffing-needs planning may thus concentrate on devising alternative assignment and organization designs to meet the new service demands.

One of the problems often associated with planners who take on research activities is that the formal research-oriented education or training given them makes them believe that they will work as

"freelance intellectuals" and be employed to "provide rational solutions to clients' problems."<sup>53</sup> One result of this is that the planner is often concerned with the technical aspects of problems, ignoring that technical aspects represent only one component of a complex political problem.<sup>54</sup> Thus, human-resource planning in the organizational setting must be acutely aware of not only constraints imposed by the political environment, but of the effects this has on finding alternative solutions to problems. The most cost-efficient and effective solution on purely economic grounds may be politically ineffective, inefficient, or just plain excluded.

Human-resource planning done to address a specific and identifiable organization human-resource problem is related to research-oriented planning. Problem-focused planning concentrates on discovering what the problem is and how the problem can be addressed much in the same way that research-oriented planning concentrates on discovering the means to achieve a known goal. The difference is, however, that research-focused planning begins with an organizational goal to be achieved rather than an organizational problem to be solved.

A human-resource problem may be that the agency is not able to attract qualified job applicants of sufficient number, or it may be that selection and promotion procedures do not withstand affirmative action tests, or it may be that the agency confronts high turnover levels that threaten agency performance. The objective of human-resource planning under any of these circumstances is to discover

means by which these problems can be addressed. As such, problem-focused planning involves discovering the kinds of personnel-management actions that will have the desired effect; we have referred to this above as staffing-needs planning.

We may also clarify planning's role in problem solving by noting that "the work of planners is described more accurately as problem formulation than as problem solving."<sup>55</sup> It is indeed rare that a given personnel problem can be described and understood in a single way. Most problems have multiple meanings and multiple causes, and can be understood from alternative vantage points. The role of the human-resource planner becomes one of using "alternative responses to alternative views of the problem." It is up to decision makers to determine which view of the problem is to be given credence and which response best treats the problem. Given this, problem formulation can be viewed as having the following elements:

1. Identification and definition of problems in terms of their symptoms and effects.
2. Identification of alternative causes of the problems.
3. Identification of alternative solutions and their relative costs and benefits.

The orientations of research- and problem-focused planning may be seen to merge when we consider that the prime role of each is to provide decision makers with information on alternative ways of either achieving goals or solving problems. Both are vitally concerned with this information-generation process, and both are centrally committed to finding the means/ends relationships that permit

goal achievement and problem resolution. Thus, for our purposes it may not be necessary to maintain the conceptual distinction between problem-focused and research-focused planning. Both have essentially similar goals, that of providing relevant information related to the acquisition, development, and utilization of human resources.

## SUMMARY

We are now in a position to put several ideas together and to come up with a definition and purpose for organizational-based human-resource planning. Organizational human-resource planning includes work-force planning and staffing-needs planning. This includes determinations of the numbers and kinds of people needed to perform agency work, and it includes determinations of the kinds of personnel actions and policies that the organization will need to follow to secure these needed personnel. Both work-force and staffing-needs planning include some notions of forecasting likely future conditions in the labor force and forecasting conditions that will affect the availability of workers for the agency. Organizational human-resource planning may be seen as both research oriented and as problem analysis and resolution oriented. That is, it concentrates on finding (researching) the agency work-force needs and on finding ways to meet those needs; human-resource planning also focuses on identifying and resolving threats to meeting those needs (focusing on potential or existing problems). The prime objective is to devise plans of action that assist the organization in developing policies and procedures to ensure that the agency, now and in the future, has the right numbers

and kinds of people, doing the right things, in ways that are consistent with the organization's achieving its goals and missions.

### HUMAN-RESOURCE DATA AND INFORMATION

We now turn to a consideration of the data and information normally required as a part of organizational manpower planning. It should be remembered that the collection of data and the production of information are centrally linked to planning's chief role of widening the range of information and alternatives brought before decision makers. One consequence of the "widening" function is that the kind of information and data necessary to fuel manpower planning can be extensive, stretching beyond the agency to other agencies and to the broader environment of the agency.

As noted earlier, thinking about or conceptualizing the future is a principal aspect of planning. The central processes associated with planning (goal setting and problem identification, forecasting, and testing alternatives) are not, however, simply a matter of thinking abstractly about the future. Rather, we need data to base our plans on--data about past and present conditions, and about goals, forecasts, and alternatives for the future. However, a full and detailed treatment of data and their relationship to criminal justice human-resource planning could well occupy several volumes. Besides, not all important data are necessarily recognized at any one time<sup>56</sup> so an awareness of the need for data and information must be flexible. Thus, our objective here is limited to providing an overview of the principal issues involved, dealing with two major

questions: (1) What does the term data mean in relation to organizational manpower planning? (2) What are the principal kinds or major types of data that are important to it?

### GENERAL NOTIONS ABOUT DATA

Most simply, data means "records of observations."<sup>57</sup> Examples of data include the number of full-time people employed in a particular criminal justice agency, the inmate count at 12:01 a.m., or the number of traffic citations issued in the last year. Thus, data are records (written or mentally retained records) of our observations of events in the physical or real world. But "we do not observe everything that is there to be seen."<sup>58</sup>

Another basic notion about data is that a datum has no meaning by itself; it only has meaning, or is given meaning, insofar as it relates to something else: observations only become data when they are interpreted in some way, within some set of conceptual referents.<sup>59</sup> The full meaning of this proposition is complex, and we cannot deal with it here at all completely; but, most simply put, the implication is that an observation is given meaning by relating it to a concept (to our abstract thinking processes), and that when this is done, observations become data and also measures of concepts.

The consequence of viewing data in this fashion is that a simple observation can have different meanings, dependent on the concepts being measured.<sup>60</sup> For example, the meaning of unemployment level in a city will depend on what concepts, variables, or indicators the observation is assumed to be measuring. Two alternatives

come readily to mind. One is that unemployment level is measuring the concept of "availability of workers" in the local labor market: the higher the unemployment level, the greater the availability of workers and, hence, the greater the potential for finding new employees for an agency (although all the unemployed may not by any means be suited to work in a criminal justice agency). An alternative is that unemployment level is a measure of the concept of economic health: the higher the unemployment level, the less healthy the economy, leading, perhaps, to decreased agency budgets and, perhaps, to increased crime rates.

There is also a distinction often drawn between data and information: data are records of an observation, and information is "interpreted data."<sup>61</sup> For some, the term "information" is "reserved to mean knowledge for the sake of purposeful action."<sup>62</sup> Using the example above about unemployment data, these data become information when, for example, they are interpreted to mean that a certain state of economic health or disease exists and this in turn is used for some purpose.

If observations are given meaning through their relationship to concepts, it is also true that concepts are given meaning through the observations of concrete things or events that we choose to say "represent" the concept and that allow us to measure it. For example, consider the abstract concept of level of community juvenile delinquency. The concept will be defined by the set of indicators and data we choose to have collected. We might choose to collect data on the number of instances involving juveniles for all of the

following: (1) truancy, (2) runaway, (3) index crimes, and (4) nonindex crimes. Truancy and runaway are status violations, and a decision to collect data on these and thereby include them in our definition of juvenile delinquency will greatly influence the level of community juvenile delinquency measured, especially if we merely sum the number of events across all four categories. Imagine the effect, however, if all pieces of data involving status violations were put aside: the operational definition of community juvenile delinquency would be changed, and rather dramatically. Thus, a single observation may have different meanings dependent on the concepts related to it, and concepts may come to have different meanings dependent on the data that we collect and say relate to the concept.

When we set out to identify and to collect data for planning, we must be particularly careful to understand how our concrete measures and our recorded observations relate to concepts. For example, the planning goal may be to "improve agency performance by hiring a different kind of employee"; yet, how we choose to define performance and to collect data about it becomes an important matter of choice: how we define it will say more exactly what new kind of employee we need to hire. For example, do we define performance for a corrections agency as number of prison disturbances, as recidivism among released inmates, as a combination of these things, or what? If we define it simply as keeping disturbances down, the big, burly, or authoritative employee may be what we are looking for. If, on the other hand, we define it as lower recidivism rates, we

may be looking for personnel who have the ability to counsel, to train and to educate, and to "rehabilitate."

Even when collecting data about apparently clearly understood matters, we must be careful that the data collected unambiguously measure what we intend that they measure. "The first step in identifying and generating usable data must normally be to clarify . . . just what is being asked for."<sup>63</sup> For example, data about employee promotions requires that the meaning of promotion be clearly understood. Does promotion mean a raise in salary, or does it mean a change in job classification is required, or both.<sup>64</sup> Or, what about tardiness in arriving at work; what are the conditions and characteristics of time sufficient to record an individual as "tardy." Sufficient attention to details in the definition of concepts cannot be ignored.

#### TYPES OF DATA FOR CRIMINAL JUSTICE ORGANIZATIONAL HUMAN-RESOURCE PLANNING

One way of viewing the kinds of information necessary for organizational human-resource planning is in the context of management's mission to create a coordinated, integrated, and productive environment in which the goals of the agency can be attained. To do this, managers typically manipulate three factors: resources, activities, and objectives. Collecting data and information about these factors becomes a prime concern in any planning exercise. These three factors can be defined as follows:

1. Objectives are the goals or missions of an organization, or, in other words, the purposes for which the organization was formed.

2. Activities are the work or tasks the organization undertakes to achieve its missions or goals.
3. Resources are the material commodities expended in undertaking work or tasks. These materials may be measured in dollar costs and, for the most part, are the cost involved in buying things and hiring people.

Another way of viewing data requirements for organizational human-resources is in terms of the central processes of planning: goal and problem identification, forecasting, and generating and testing alternatives. Data needs under these rubrics include information related to agency goals, missions, and performance (what they are, ways of measuring them, and observational data about how far they are or have been met). One type of data falling under this might well be community-needs-assessment data or opinion data from community and political leaders about missions, performance, and goals.<sup>65</sup>

We would also want to secure pertinent data on variables that would allow forecasting of agency and environmental conditions. In criminal justice this might include trend data on things such as population, crime, the economy, service demands, and budget. Volume 6 of the National Manpower Survey of the Criminal Justice System included these variables and several others in its attempt to forecast criminal justice manpower needs.<sup>66</sup> The generation and testing of policy and program alternatives would not only require the inclusion of agency-based data and information of a wide variety, but data and information on findings from previous organizational experiments or from management- and policy-oriented publications.<sup>67</sup> These

sources of data and information can provide ideas for new policy-program alternatives, can indicate whether they have been tried and have worked in other places, and can show which circumstances appear necessary to making them viable.

Another way of categorizing data for planning is according to the basic and important variables usually associated with planning analyses. The general classes of variables are briefly identified below, primarily in the context of doing human-resource planning in operational agencies; however, many of those data are important for conducting system-level planning as well. Although the categories are not exhaustive, they can be recognized as the "most important" ones.

### FIGURE 1 ENVIRONMENTAL DATA

#### Agency Missions and Goals

Data in this category are usually qualitative and subjectively grounded. Data and information collected on missions and goals may come from several sources, including both internal agency and public and political sources. Information on missions and goals provides an anchoring mechanism for planning agency programs and for evaluating agency performance.

#### Crime

Data in this category often are expressed quantitatively in terms of levels of crime within detailed categories as well as in terms of crime trends, mathematically expressed. Information related to crime provides a principal input to organizational and system planning and can be seen as a measure of demand placed on criminal justice agencies and systems.

#### Economic and Budget Conditions

In their typical form, data on these variables are expressed quantitatively, and often as trend data or information. Economic and budget data are principal means of measuring the level of potential and actual environmental support for the criminal justice system and its agencies.

#### Population Characteristics

Demographic data about the population served are often expressed quantitatively and are about socio-economic mix, income, housing, education, race, etc. Information on population demographics may serve as indicators for determining the quantitative and qualitative nature of demands put on the system and its agencies--namely, numbers of people and kinds of people with associated needs for service.

#### Public and Political Values

Data and information on public and political values are subjectively derived and affect not only agency missions and goals but agency and system program options. Information may focus on the qualitative aspects of political and public ideology and program preferences, or they may be quantitatively expressed as degree of political and public support for various ideological positions and program alternatives.

#### Labor Market Conditions

The availability of labor and the qualitative characteristics of the labor pool from which the agency recruits its personnel are primary among these data.

### FIGURE 2 ORGANIZATIONAL DATA

#### Work-Load Data

Data in this category measure the amount and kind of work done by the agency. The data are usually

expressed quantitatively as amount of work done, of various types or in various areas of the agency. Specific forms of data expression include number of work units performed in various categories, number of personnel man hours consumed per work unit, and the like.

#### Job-Focused Data

Data and information here have to do with the nature of the work done in an agency and can be defined and divided into jobs that are collections of roles, tasks, and activities. Job-focused data are often qualitatively based and appear in the form of words that describe job characteristics. There may also be quantitative elements in job description data--such as the requirement of shooting at the 80% level, or of running a mile in 10 minutes or less. Some aspects of job-focused data are quantitative expression, as in specifying the number of jobs within certain categories, or in specifying the number of people needed with certain skills and knowledge to fill certain jobs.

#### Employee-Focused Data

Data and information in this category are quantitative and qualitative expressions of the characteristics of employees--characteristics relevant to the performance of agency jobs and missions. One typical data expression involves the number of people within the agency who have various kinds of knowledge and skills. This information provides a basis for estimating the work and job potential of the agency, and is important given that criminal justice is largely a labor-intensive field.

#### Performance

Agency performance data is vitally concerned with measuring and determining how far the agency is meeting

its missions and goals. Performance data may be quantitatively oriented as in law enforcement agencies' traditional calculation of clearance rates. Subjective but quantitatively expressed ratings of agency performance by citizens or by clientele served can act as measures of performance.

#### Personnel System

Data and information about the practices and processes associated with the personnel administration system (recruitment, selection, assignment, training, etc.) provide information related to whether practice follows policy and whether various practices are meeting their objectives. Also, data related to the numbers and kinds of employees leaving the agency and the reasons for such losses are important.

Each of the categories of data is considerably more complex and contains numerous, more specific versions of data than has been indicated in the above list. So too, the sources of these data vary greatly as do their form and content. The short sections below give additional specification to some of these general categories of data.

#### ENVIRONMENTAL DATA

Data on conditions and forces largely external to the criminal justice agency are important in conducting manpower planning analyses. An important but often elusive set of data is about the missions and goals of an agency. They are elusive because attempts to state goals in measurable ways often fail (precisely what does "enforcing the law" mean in a measurable sense, or what does it mean to keep inmates safe and secure?). But knowing what the prime missions and goals are, how to measure them, and how they change is important for

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planning purposes. For example, if providing education to inmates so as to promote minimal levels of literacy becomes a new mission of a correctional agency, important programmatic, resource, and personnel consequences will ensue. More will be said about missions and goals in the section concerning performance data.

Criminal justice employees are part of the larger local, state, and national labor markets. The characteristics of the local labor pool as well as the nature of competition from both public and private employers for qualified personnel obviously influence the availability of both numbers and kinds of personnel for the agency. The plain fact is that no matter how essential skills and knowledge are defined for employees, and no matter what the work load of the agency, criminal justice agencies must compete with others for qualified employees. Data about sources of competition for employees are important, and can be secured in part through exit interviews held with employees to find out where they are going and why. A knowledge of competitive wage and benefit scales, of perceptions of the "attractiveness" of occupations in criminal justice compared to occupations among competitors, and of unemployment rates (affecting the saturation of the labor market and the opportunity for alternative employment) are all examples of information that at one time or another may be important to understanding not only the relative availability of people for jobs in the agency, but also what needs to be done in order to attract qualified individuals in sufficient number.

The kinds of information found in a labor-market information system may be limited or it may be quite broad. One proposed labor-market information system contains 36 major categories of data. The data could be used to produce statewide aggregates, regional summaries, as well as local summaries. Included among the 36 categories are:

- Establishment of labor demand, by occupation (total current job opportunities, e.g., number of job openings in a state in law enforcement agencies).
- Indicators of labor supply, by occupation (e.g., number of individuals who have completed entry-level training programs and are waiting to be hired).
- Anticipated short-term total labor demand, by occupation.
- Anticipated longer-term total labor demand, by occupation.
- Anticipated short-term labor supply, by occupation.
- Anticipated longer-term labor supply, by occupation.
- Probable changes in the characteristics of the "typical job."
- Probable changes in the characteristics of "worker customarily hired" in the occupation.
- State and local employment trends.
- Longer-term employment projections, by industry.<sup>68</sup>

Basic characteristics of the population served will influence not only the amount and kind of service expected of an agency, but will also influence the need for numbers and kinds of agency personnel. Percentage of the population that is juvenile, unemployment rates, per capita income, percentage of the population recently immigrating, cultural and racial composition of the population

served (to name a few characteristics) variously influence the amount of and kind of crime experienced, and ultimately the kind of services expected of law enforcement agencies.<sup>69</sup> Changes in these population demographics may well require agency adjustments in basic mission, resource allocation, and programs. So too, composition of the local labor market, the health of the local economy, and that of the agency budget will greatly influence the agency's ability to attract and to secure qualified personnel.

Primary data collection for population, labor market, and economic variables are not normally a responsibility of criminal justice agencies, as several official, public, and private sources of such data exist (U.S. Census, chambers of commerce, banks, survey research bureaus and corporations, etc.). Nonetheless, these data sources will likely need some analysis and adaptation by criminal justice agencies to fit their human-resource needs.

#### ORGANIZATIONAL DATA

Data on work loads, jobs, employees, and performance are the principal organizational data important for manpower planners. Although there are other types of organizational data variously important for planning purposes, these four categories are central to most planning. Each is considered below in further detail.

##### Work-Load Data

Gathering work-load data involves both determining the categories or types of work being performed and counting the amount of work

performed in each category. Work-load data are particularly important in organizational planning because work-load measures and data are one of the principal indicators of amount of demand being placed on the agency.

It is often helpful to think of workload when considering manpower requirements . . . . Basically, the workload factor method means separating the work to be done into its discrete parts . . . . Each part is then forecast and converted into manning requirements by a conversion factor. This might be the number of man hours required to do each job which can be multiplied by the number of jobs and thus the total requirement for man hours obtained. It is not difficult to convert this into the number of employees required.<sup>70</sup>

Developing adequate measures of and data related to work loads is not as straightforward as it may seem. For example, in the law enforcement field there are great differences between what is officially recognized as the work of the police and what the police actually do. It is often presumed that police enforce the law and prevent crime; yet, any experienced officer will relate that great portions of time are spent "doing other things"--arbitrating domestic disputes, providing emergency services, rendering first aid, "counseling" and advising citizens, and the like. Measuring the work actually done by an agency and its personnel, or that expected of agency personnel, should normally include collecting data related to all of the more time-consuming of these types of duties.

Being very accurate about measuring the kinds and amount of work actually performed can itself amount to a significant work load. Thus, some accommodation must be struck between securing data enough

to get a reasonable picture of agency work load and being cost efficient in doing so. Because official descriptions of job duties and statements of agency mission may be different from what individuals actually do, a starting point in securing data about work loads is first to develop categories of work the actual work of the agency can be put into. Job-focused data secured through, say, a job analysis will help to substantiate empirically the kinds of work, tasks, and roles performed.

Aside from the fact that work load categories should comprise a reasonably accurate picture of the work actually performed, other issues are involved in making data collection on work load efficient and effective.<sup>71</sup> Among these are the following:

1. The kinds of work categories devised should permit something to be counted: the number of cases, the number of calls for service, the number of inmates processed, etc. Each instance or occurrence becomes one work unit. The number of work units performed becomes the work load in that category.
2. The potential or actual volume of work performed in each kind of category should be sufficient to make it worth counting. Thus, it may not be worth the time to count infrequently occurring activities, especially if little personnel time is spent handling them.
3. Work categories should allow, where necessary, for distinctions being made that work performed within certain subcategories of a work-load category varies both in the kind of and amount of work done per work unit. For example, the amount and kind of "work load" involved in supervising 50 low-risk probationers may well differ from that involved in supervising 50 high-risk probationers.

The issue of differences within types of work-load categories is important. In a law enforcement agency, for example, one

traditional measure of agency work load is counting the number of calls for service and using this gross statistic as one measure of demand-induced work load. Yet it is clear that a call for service involving a noisy stereo is, on the average, less time consuming in man-hours than, say, a call involving a homicide. Of course, the number of calls for service involving serious crime is normally significantly less than the number involving nonserious crimes, complaints, or calls for emergency services. Thus, the aggregate number of man-hours involved with homicides is far smaller than the aggregate spent on, say, complaints.

Although there are differences in time and man-hours spent in nearly every particular instance of performing a unit work, the point in measuring these differences is not to split hairs so finely that every discrete work unit ends up having its own associated man-hour equivalent. Rather, the purpose is to recognize that broadly speaking, there are significant differences in types of man-hour demands put on an agency when certain types of work are done.

We must be careful, however, that the distinctions being made among kinds of work units within a given work-load class are valid distinctions, and that they have some basis in fact. For example, a correctional classification system that involved categories of high-, medium-, and low-risk inmates should validly represent real differences affecting subsequent man-hour requirements. We may, for example, choose to say that inmates with life sentences are high-risk, and we may be willing to assume that custody of them will be

more problematic because they have nothing to lose in being hard to handle. Yet, many experienced corrections managers will testify that "lifers" are often easier to deal with than are "short-termers."<sup>72</sup>

It is also important that agency records of work loads and work units validly and consistently measure things. For example, law enforcement agency dispatch records reflect what citizens "think" the problem is, while Reiss has found that the police officer on the scene more often than not redefines the citizen's problem.<sup>73</sup> Thus, simply using dispatch records and calls for service may not accurately reflect either the real nature of the call for service or the subsequent work of the agency in dealing with it.

An important caveat about work loads is that the number of work units performed does not by itself allow us to measure work load. Many people and many man-hours will often be involved in disposing of a particular work unit. For example, we might suspect that a call for service involving a UCR index crime could involve patrol, detective, clerical, and forensic personnel, each performing a variety of specific tasks. The reception and diagnosis of a single inmate will involve custodial, medical, and clerical personnel. Thus, a work unit (one call for service or one intake of a new inmate) is meant to stand for all these things. A good job analysis will allow an agency to determine how many people, doing what kinds of things, over what period of time are required on the average to dispose of a particular work unit. This kind of "average" analysis of the work involved in a particular work unit is usually sufficient

for planning purposes, and allows the planner to estimate changes in personnel and resource requirements, dependent on changes in work loads as measured by work units performed and demanded.

The figures below contains sample work-load categories for monitoring the level of demand placed on law enforcement, corrections, and court agencies. It is not intended that these sample categories be exhaustive, but merely illustrative of some of the types of measures useful for keeping track of and categorizing work loads in these kinds of agencies.

FIGURE 1

## SAMPLE WORK-LOAD MEASURES IN LAW ENFORCEMENT AGENCIES

<u>General Category</u>	<u>Subcategories</u>
Calls for service	Index crimes Nonindex crimes Emergency services Complaints
Arrests	By patrol By detectives
Traffic accidents	Property damage only Personal injury or death
Traffic citations	--
Juvenile contacts	Detentions Number of juveniles
Court man-hours	--

FIGURE 2

SAMPLE WORK-LOAD MEASURES  
IN CORRECTIONS AGENCIES: INSTITUTIONAL

<u>General Category</u>	<u>Subcategories</u>
New inmate intakes	According to charge According to sentence
Number of inmates (perhaps in the form of daily inmate logs)	Number classified as high risk Number classified as medium risk Number classified as low risk
Inmate man-days	--
Inmate disciplinary cases	Involving criminal charges Involving prison rules
Fixed post security requirements	--

FIGURE 3

SAMPLE WORK-LOAD MEASURES IN COURTS

<u>General Category</u>	<u>Subcategories</u>
Criminal proceedings	Cases filed Arraignments Pretrial motions Uncontested court trials Contested court trials Jury trials Bench time
Civil proceedings	Cases filed Pretrial motions Jury trials Bench time
Juvenile proceedings	Referrals Petitions Cases Bench time

Job-Focused Data

One of the most basic forms of data for organizational manpower planning entails knowledge of the jobs or work within the organization. Without data about the jobs done, we have little basis on which to understand and to plan qualitatively for personnel needs; we also have little basis for understanding whether what is actually done in the agency's work is consistent with the organization's goals and objectives. The various kinds of work done in an agency can be divided into jobs; the jobs in the agency can be seen as collections of roles, tasks, and activities that compose various jobs. Having this information gives us some idea of what either goes on or is supposed to go on in the agency.

A related and important kind of job-focused data is about the skills and knowledge required of people who fill these jobs or perform the various roles, tasks, and activities of the agency. Thus, data about the roles, tasks, and activities of a job are related to, but are different in form from, data about the skills and knowledge required to do the job.

There is also a difference between data that tell us what the jobs of the agency are and data that inform us what the jobs should be or will be. Sometimes this difference is ignored and data describing the current jobs are used inappropriately to imply what the jobs should be, or what the jobs will always be (and vice versa). This is a particularly dangerous thing to do, because in time, the nature of a job changes and with this comes change in the kinds of

skills and knowledge required to do the job. For example, the job of a prison custodial officer in a non-treatment-oriented setting will be different from that in a treatment-oriented one; if the basic prison mission moves from non-treatment to treatment, the skills and knowledge required to do the job will also change (see the figure below). Job analysis is an empirically-based technique that, if properly used, can help avoid some of these problems and can help define the responsibilities of the jobs.<sup>74</sup> The figure below presents four basic types of job-focused data useful for manpower-planning activities.

FIGURE 4  
BASIC TYPES OF JOB-FOCUSED DATA

	Jobs Defined in Terms of Roles, Tests, and Activities	Skills and Knowledge Required for Each Job
About the Way Jobs Currently Are	Present Nature of Jobs	Currently Required Skills and Knowledge
About What Jobs Should Be or Will Be	Future Nature of Jobs	Future Required Skill and Knowledge

The figure above summarizes these points, indicating that job-focused data most generally fall into four main categories, each with different purposes and contributions to make to manpower planning.

#### Employee Data

Jobs are inanimate things. People give jobs life in the sense of something actually being done. An important distinction between

job-focused data and employee-focused data is that the former tell us what is demanded in numbers and kinds of personnel while the latter tell us what the supply of the numbers and kinds of people is. Following are some of the types of employee-focused data that can be important.

Number of Agency Employees. These are fundamental data, but when the gross statistics on numbers of employees are broken down, they become most important. For example, it may be important to know how many people are assigned to various job classifications, or how many people in the agency have what kinds of skills, or how many people are in each age bracket, or how many people have had what kinds of job experiences in the agency. The issue of job experience is interesting because knowing how many people have had what kinds of experiences may give us some indication of the "flexibility" to assign agency personnel from one job to another.

Thus, "numbers of employees" must be associated with something, such as numbers in a particular job classification or numbers with a particular skill. Some of the ways in which numbers of employees data can be categorized and arranged for manpower-planning purposes include:

1. According to age brackets (this may be important to estimating retirement dates, turnover, or availability of certain personnel to perform certain kinds of jobs).
2. According to types of jobs (for determinations of the distribution of personnel across jobs and tasks, for laying the foundation for understanding where there are shortages or duplication, etc.)

3. According to experience or skill categories (for estimating the qualitative dimensions of the agency labor force--this is addressed more thoroughly below under skill-bank data).

Skill-Bank Data. An important aspect of understanding the nature of personnel supply in the organization relates to knowing how many people, having what kinds of skills, knowledge, and experience, regardless of what may be required of them in their particular or current job, are currently available to the organization. This kind of data can be important for any of several reasons. First, it provides the basis for estimating the agency-wide supply of such things, and insofar as this information is linked to people and not to jobs, the supply of these skills and experiences can be measured. This may be useful, for example, in building estimates of the flexibility of the agency to assign personnel. A second reason for having information linked to individuals is that it lays the basis for determining whether the individuals holding various jobs (requiring certain skills and knowledge) are in the right jobs. Thus, this kind of information may become important and necessary to reassigning people to different jobs. Third, having this information becomes important to determining where the weak spots in the organization are--in personnel skills and experiences, for example, pointing to particular needs in redirecting recruitment and selection practices.

The kinds of information kept in a skills bank will vary greatly from agency to agency, depending not only on the type of criminal justice agency (e.g., law enforcement or corrections), but also on the particular mission of an agency (e.g., custodial versus rehabilitation

corrections). Therefore, aside from the general categories of information that would tend to be similar from agency to agency, each agency must add the specifics that are peculiar to its jobs and its missions. Some of the more general categories of data included in skills banks (the ones that tend to be common and helpful to most criminal justice agencies) are the following:

1. Education and training programs completed by employees. A record of training and education undergone can become an indicator of the kinds of skills and knowledge possessed by the employee.
2. Certifications and licenses held by employees. This relates to legal authorizations for employees to perform certain tasks.
3. The employee skills questionnaire. A questionnaire, updated periodically and administered to employees, may request that they, by self-report, indicate a variety of skills or knowledge they think they possess.
4. Prior job experience. As with records of education and training, this information can provide indicators of specific skills and knowledge. To be complete, the prior job history should include information on jobs held both inside and outside the agency.
5. Job performance evaluations. This may be helpful in providing a qualitative measure of how much employees have been able to display and to utilize various skills and knowledge (assuming, of course, that performance-evaluation measures are valid).

Developing a skills data bank cannot be undertaken without regard to the jobs or work of the organization and what skills and knowledge those jobs are supposed to require. The basis, therefore, for designing a useful skills data bank (and particularly a skills questionnaire) is having sufficient job-focused data. With regard to the

employees' skills questionnaire, the items appearing on the questionnaire ought to parallel to some degree the list of skills and knowledge taken from job-focused data.

Two kinds of skills information should be kept on employees: general skills and instrumental skills. General skills are loosely defined as those that have broad application to a number of jobs and job settings, while instrumental skills are those limited to a narrower range of jobs, tasks, and roles. The list below contains a few examples of skill categories under the general and instrumental classification:<sup>75</sup>

#### General Skills

Communication ability: written and oral  
 Mathematical fluency  
 Problem solving and analysis  
 Perceptiveness and sensitivity to other people  
 Social competence in dealing with others in various social situations  
 Self-confidence and self-acceptance

#### Instrumental Skills

Skill in operating a specific tool or piece of equipment  
 Mastery of certain technical information or techniques  
 (accounting, psychology, computer programming, etc.)  
 Experience in specific work contexts

It should be kept in mind that these categories are only general categories that require a great deal of additional specification when used as a guide for determining the particular categories of a skills inventory.

One problem with skills data banks is that of "controlling" the amount of information placed within them; the range of conceivably relevant employee skills can be so wide that the skills data bank

becomes a data haypile and its use is therefore discouraged. Indeed, many organizations who have had experience with keeping skills data banks report infrequent use,<sup>76</sup> in part because of the data haypile phenomenon and in part because union contract and civil service constraints may make the use of most of the information for recruitment, selection, and assignment irrelevant.<sup>77</sup> Most organizations have great amounts of personnel information, kept as a normal part of the personnel process, but use of this information is often limited.<sup>78</sup>

A 1971 publication of the American Management Association, Personnel Systems and Data Management, proposed 18 general categories of information, with 182 subcategories, each of these with a myriad of additional categories of information to be kept on employees.<sup>79</sup> One supposes that any serious attempt to fulfill such data requirements would actively discourage both collection and use of such data. Nonetheless, some basic data about employee skills should be kept as a means of estimating the nature of supply.

Employee Job and Career Preferences. Data on employee job preferences and career aspirations are often useful in understanding the dynamics of motivating personnel in the job; this would in turn presumably have some effect on productivity. When information of this type can be secured and entered into planning-related exercises, then recruitment and the assignment of personnel can take these matters into consideration. Conversely, not having this information makes it hard to know whether a productivity problem is related to having inappropriately skilled employees or to having sufficiently skilled employees who lack the motivation to do the work assigned them.



### Performance Data

Agency performance and the performance of individual employees, if properly and validly conceived, become the operational measures of goals and missions; performance data become the concrete indicators of the achievement of goals and missions. For example, we may state abstractly, as one goal of a sheriff's department: "To provide a physical environment and supportive services that protect and contribute as much as possible to the physical and mental well-being of inmates." This may be a laudatory goal but one without much meaning unless it is given some concrete reference. One set of concrete references is provided by indicators that seek to measure the provision of a proper physical environment for inmates' well-being.<sup>80</sup>

1. The number of crimes committed by inmates and having other inmates as victims
2. The percentage of inmates attempting and/or committing suicide
3. The number of sustained inmate grievances
4. The number of reimbursed room thefts
5. The number of critical incidents involving dangerous contraband (weapons and drugs)

Although other measures may be more appropriate within a given jail, and although some questions may be posed about the validity of these particular performance measures, they nonetheless provide an example of how concrete performance indicators begin to describe the meaning of an "abstract" agency goal. A different set of performance indicators not only might produce different "results," but would differently describe the meaning of the abstract goal as well.

Although performance measures are important, the attempt to develop adequate and fair measures of criminal justice agency performance has been most difficult. The problem is much more severe than it is in private industry where profit becomes a convenient and ultimate measure. In public agencies, the measures are dependent on people's values, and values held are often different from one person to the next. For example, some hold that the mission of institutional corrections is secure incarceration; performance under this value system might be measured by the lack of escapes and disturbances in the prison environment. Others hold that the mission of institutional corrections is rehabilitation; performance under this value system might be measured by the lack of recidivism among released inmates. Finally, many hold that the mission of institutional corrections includes, but is not limited to, secure incarceration and rehabilitation; performance under this kind of value system might be measured by both the lack of escape or disturbance and by the lack of recidivism, but these may not necessarily be complementary to one another in achieving desirable ends.

Performance criteria are often conflicting, if not properly interpreted. For example, law enforcement agencies may be seen to have law enforcement and crime prevention duties. One performance measure for "crime prevention" is how much the crime rate drops. A measure of "law enforcement" performance might be clearance rates. But if these measures are not properly interpreted, an improvement in one area may give the appearance of deterioration in the other:

increased arrests may be interpreted by some as poorer crime prevention because they take the measure of increased arrests to mean higher crime levels (not a necessarily valid conclusion).

Thus, the problem is that performance data are not always, or perhaps even usually, clear in what they mean. They are highly dependent for meaning on what goals or missions we say they are measuring. Traditional performance indicators of the "law enforcement" function include the concept of "cases cleared or solved." This concept is, however, not quite as straightforward as it may sound. Cases cleared by arrest as opposed to cases cleared by conviction are two different things, and in the latter case, getting a conviction is not by any means wholly within the powers of the police. By the same token, an arrest is not necessarily indicative (in the eyes of the law) that a case has been solved. Thus, although clearance-rate data may be "objective" and reliable, there may remain a problem of construct validity in that the meaning that we give the data is open to subjective debate.

Another indicator of law enforcement performance sometimes used is the number and severity of complaints brought against the department and its personnel by others. This too, however, requires interpretation because not all complaints are necessarily related to performance of the agency in meeting its prime missions. In other words, some complaints are related more to public relations than directly to the achievement of agency goals and mission as such.

In measuring performance and in collecting data about it, distinctions must be made between "work-load" data as a measure of

performance and performance in the sense of accomplishing missions and "doing the jobs well." Work-load measures only answer the question about how much work there is. They don't tell us how well the job was done, and this relates more closely to what performance is typically supposed to mean. Answering calls for service or accepting new inmates are indicators of how much work. Clearance rates and lack of complaints (even given the problems with these) begin to measure the how well, or the quality of performance. Similarly, low levels of prison disturbances and inmate suicide may be measures of how well the institution is doing its job, although they are crude measures and sometimes misrepresent the achievement of other missions such as "rehabilitation."

Ratings of agency performance given by clientele groups or the general public can sometimes be used as data in measuring agency performance. Surveys of citizens about service levels and quality of service rendered can provide such data. Evaluations of police and other services as solicited from victims are another source of such data. This kind of data is largely attitudinal (based on people's perceptions, beliefs and attitudes) and may be distinguished from data based on official records. This is not to say that public records are any less subjective as means of measuring performance; official records, although they may be accurate recordings of events, are nonetheless subject to gross interpretation. Surveys of clientele attitudes may be as valid and reliable, making them objective measures of either people's attitudes or experiences.

Thus far, performance data has been discussed at the level of the agency; data about the performance of individual employees also become important as a basis for determining where there are particular problems in how well a job is being done, or how well a position is being filled. Data on individual employees may be aggregated in various ways to provide estimates about how well various parts or divisions of the agency are performing.

Finally, it is worth distinguishing performance evaluations of individual employees from overall agency performance. Presumably, the sum of individual performances equates in some fashion with overall agency performance, although not precisely. However, data on individual performance (individual employee evaluations) are as important as data on overall agency performance, because the individualized data allow us to pinpoint trouble spots, either in certain jobs or in certain individuals. Simply having data on overall agency performance levels may serve to mask some of these trouble spots, and may lead us to ignore existing or developing problem areas.

#### SUMMARY

In this volume we have explored the many facets of planning, especially those that focus on managing agency personnel. Planning in all its forms is future oriented; it is a conscious process of collecting information in support of making assertions about cause and effect; and it is action oriented.

Human-resource planning is the process of determining what an agency needs to do to ensure that it has the right number and kinds of people doing the right jobs, now and in the future, and doing those jobs well. The principal analytical activities associated with human-resource planning are workforce planning and staffing-needs planning. Workforce planning analyzes the need for personnel--how many and what types of people. Staffing-needs planning focuses on analyzing and planning the various personnel administrative actions that need to be taken to acquire, to develop, and to assign personnel.

The principal analytical activities associated with planning include the determination of goals and the defining of problems, the generation and testing of alternative means and solutions, and forecasting. Planning is not easy to do because so many factors are involved in forecasting the future and because goals and problems are sometimes difficult to define. Further, finding the means to achieve goals or to solve problems is often constrained by technical or resource limitations, and by other limitations imposed on the agency by its environment. Indeed, the usual situation confronted by agency planners is that key information of one kind or another is usually missing, making purely rational planning impossible.

Purely rational planning is largely impractical, but we can try to be as rational as possible within the limitations imposed. Taking a limited rational approach to planning and to human-resource planning requires nonetheless that empirical data be collected and that certain forms of analysis be conducted.

Defining goals and attempting to establish goal consensus is important. But there are often limits on our abilities to do much more than make general statements about goals. In these situations problem-oriented planning may be the only form of planning possible. Under this form, planning proceeds by attempting to diagnose the problem and by locating and evaluating alternative solutions to it. Additionally, problem-oriented planning tends to be very practically focused on those issues that most often confront the management of the organization and its personnel.

Many kinds of data are essential to human-resource planning. Environmental data is important for understanding contingencies and constraints imposed on the agency from the outside--in particular those constraints that bound the agency's ability to acquire, develop, and assign human resources. Important environmental data include that about missions and goals, crime, economic and budget conditions, population characteristics, public and political values, and labor market conditions.

There are also many kinds of organizational data important to human-resource planning efforts. These include work-load data, job-focused data, employee-focused data, performance data, and personnel system data. A principal concern with all of these internal and external data is that they are collected in a valid and reliable manner and that they are valid and reliable indicators of reality.

There are five principal applications of human-resource planning:

(1) Forecasting personnel resources--analyzing both the availability

and the need for personnel now and in the future, dependent on agency missions and work loads; (2) forecasting relevant environmental variables--analyzing trends in budgets, population trends, public values and so forth as these influence the need for and the availability of personnel; (3) examining the effects of personnel practices--determining both the current effects and likely future effects of agency personnel practices in securing and holding the right number and kinds of personnel; (4) predicting and projecting personnel problems--identifying and diagnosing personnel-related problems in the agency; and (5) planning the resolution of existing human-resource problems--determining the causes of personnel problems and the personnel actions that are necessary to resolve them.

Finally, the ideal of human-resource planning is to focus attention on personnel issues in a comprehensive fashion. The need for and the availability of human resources, and the problems associated with the personnel component of the agency are influenced by a complex array of agency and environmental factors. So too, the personnel administrative practices associated with recruitment, selection, assignment, performance evaluation, and the like are interrelated. Identifying personnel problems and searching for solutions to them requires that these complex interdependencies be taken into account in a comprehensive fashion. The human-resource planning materials that follow in Volumes II and III provide a framework for undertaking such comprehensive analyses.

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