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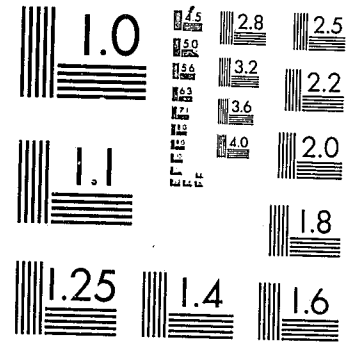
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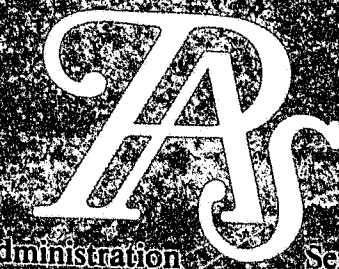United States Department of Justice
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A SYNTHESIS OF RESEARCH

AFFECTING POLICE ADMINISTRATION

April 1981

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Public Administration Service
1497 Chain Bridge Road, McLean, VA 22101 (703) 734-8970 Telex 64462 Washington, DC
1313 East Sixtieth St., Chicago, Illinois 60637 (312) 947-2121

# Public Administration Service

1497 Chain Bridge Road, McLean, Virginia 22101(703)734-8970/Cable: PASWA/Telex: 64462

March 31, 1981

Mr. George Shollenberger
Police Division
Office of Research Programs
National Institute of Justice
633 Indiana Avenue, N.W.
Washington, D.C. 20531

Dear Mr. Shollenberger:

On behalf of Public Administration Service, I am pleased to submit our report entitled A Synthesis of Research Affecting Police Administration. This report is the result of a 15-month research study of the value of research findings on several topics of importance in contemporary law enforcement.

The scope of the study required contributions from more than a half dozen members of PAS' regular staff, as well as the members of an outside Advisory Committee. Robert Macfarlane, PAS Principal Associate, served as the Principal Investigator for this study. Overall project direction was provided by the undersigned.

We wish to acknowledge the high degree of support extended to us by the National Institute of Justice. We are especially appreciative of your guidance and assistance.

It has been a privilege to be of service to the National Institute of Justice.

Sincerely,

George Greisinger
Assistant Director

GG/jl

NCJRS

MAY 13 1981

ACQUISITIONS

Chicago Office: 1313 East 60th Street, Chicago, Illinois 60637 (312) 947-2121

A SYNTHESIS OF RESEARCH
AFFECTING POLICE ADMINISTRATION

by

Robert I. Macfarlane
Arlen S. Morris

Public Administration Service
McLean, Virginia

April 1981

ERRATUM

Although no text is missing in Chapter IV
of this report, page number 117 has been
omitted.  The text is continuous from page
116 to page 118.

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EXHIBITS

ABSTRACT

"A Synthesis of Research Affecting Police Administration" is a comprehensive critical analysis of published research on police management, administration, and organization, with a supplemental analysis of research published in other managerial and social science disciplines. This research was supported by a grant from the National Institute of Justice (Grant Number 80 NI-AX-0002). This study was initiated in November, 1979, and completed in February, 1981.

The goals of this study were the development of a research agenda for future research on police administration, and an identification of the status of police management, administration, and organization. A total of 485 empirical research studies were reviewed as the data base for this synthesis. A comprehensive, conceptual framework consisting of 40 variables examining managerial, administrative, and organizational issues was used as an analytical tool in synthesizing these studies. The findings from these studies were scrutinized to deduce a knowledge base regarding police management, administration, and organization.

This synthesis identifies both knowledge base strengths and weaknesses in the literature. It confirms many theoretically based management and organization principles, while also raising questions as to the efficacy of certain traditional police managerial and organizational practices. The synthesis also identifies areas where very little research has been conducted.

| George W. Greisinger | Robert Macfarlane | Arlen S. Morris |
|---|---|---|
| Project Director | Principal Investigator | Research Associate |
| Assistant Director | Principal Associate | Staff Associate |
| Public Administration Service | Public Administration Service | Public Administration Service |

Policing has been subjected to numerous investigations of managerial and administrative practices, organization structure, and individual and group police office behavior. The volume of research on these topics has increased since the middle 1960's, when proponents of police reform called for extensive research and development efforts to foster new knowledge about effective management and administrative methods in policing. Prior to this period, very little knowledge, gained from scientific examinations of the police function, was available to assist police administrators, government officials, and students of police organization and administration in understanding the management of the police operation.

Nearly 15 years have passed since the initiation of increased research in police management. During this time students of many disciplines, including political science, sociology, psychology, general management and organization, and police science, have analyzed police managerial functions and practices and published their findings. Much of this research has been beneficial, supplementing previously undeveloped or incompletely defined knowledge bases on police organization and management. Other studies have proven less valuable, but have contributed to the state of the art by accentuating issues for further research, or by highlighting problems to avoid in conducting research in police organizations.

To date, there has been no available study of the strengths and weaknesses of these knowledge bases. This report identifies many of those areas where substantive knowledge is less than fully developed, while simultaneously consolidating research findings on like topics, where possible, into solid knowledge bases on police organization and management. The report breaks new ground in its comprehensive synthesis of research findings on important topics in contemporary law enforcement.

This report is also unique in its examination of numerous facets of police organization and management and analysis of relationships between several management dimensions. The structured typology utilized for this study represents a new aproach to analyzing police organization and management. The study clearly shows how this typology can be used to analyze empirical relationships within the management domain. The inclusion of this typology contributes to the overall value of this report.

Further, no prior available synthesis of this magnitude has integrated pertinent research findings from other management and social science areas with those of the police field in a comparative approach to developing knowledge on police organization and administration. This study is unique in this sense; the effort to supplement information and knowledge in policing with knowledge produced in other disciplines enhances the value of this study.

The study also offers a significant contribution in stimulating further study of many other managerial and administrative issues in law enforcement. As demonstrated in this report, there is a need for further research based on sound methodological procedures to clarify, extend, or perhaps refute some of the theoretical premises suggested by previous research in police science and reviewed and analyzed in this report. Future researchers will find that this report will serve as a valuable basis for developing new research ideas.

Dr. Richard Miller
President
R. D. Management Associates, Inc.
Alexandria, Virginia

Professor Jim L. Munro
Professor of Political Science and Criminal Justice
University of West Florida
Pensacola, Florida

Professor Richard A. Myren
Director
Center for Criminal Justice
College of Public Affairs
The American University
Washington, D.C.

# EXECUTIVE SUMMARY

This synthesis of research affecting police organization and management critically reviews a sampling of research studies appearing in journals, books, monographs, grant reports, and other documents. The synthesis includes an analysis of the content and methodologies of research in policing, and the transfer of research findings from other disciplines to police organization and management. This synthesis results in: (1) a review of the state of the art of research in police management, administration, and organization, (2) a review of the information and knowledge generated by research in police management, administration, and organization, and (3) a research agenda for future police research.

## Study Objectives, Tasks, and Methods

Over the past 15-20 years, there has been a significant increase in the volume of research on police management, administration, and organization. To date, this research has not been analyzed critically or comprehensively. Moreover, little or no efforts have been undertaken to analyze and transfer, where possible, research results from studies in the domains of general management and organization and social science to the police field. This study was initiated to address these research needs. The goals of the study were:

1. To identify those books, monographs, and articles produced by social scientists and criminal justice scholars which have particular relevance to the management of police organizations.

2. To analyze the content of those works, focusing specifically on those which have produced knowledge-- empirical findings generated by methodologically sound research procedures.

3. To compile those findings into a coherent synthesis, identifying the strengths and weaknesses and the absolute gaps in knowledge regarding police management and administration.

The first two of these objectives were accomplished and are reflected in this report. The third objective, in retrospect, proved quite ambitious given the resources to complete this study. A more appropriate objective would have been to identify and illustrate knowledge base strengths and weaknesses concerning research affecting police management, administration, and organization.

One of the first tasks of this study was the specification of the study's parameters. Five distinct parameters were chosen to narrow the project's scope. These parameters are:

1. A decision to include a sampling of research studies from the general management and social science disciplines to provide a comparative base for analyzing police studies.

2. A decision to limit the study's domain to only empirical research studies to facilitate the identification of a knowledge base on police management and organization.

3. A decision to eliminate from consideration research studies that focused primarily on police operational content topics.

4. A decision to eliminate from the scope of the study research that focused on the management activities and style of the police chief executive.

5. A decision to limit the research to only research reports published in the United States.

A critical task in this research effort was the development of a conceptual framework. The selection of a framework was a major decision point because of the sheer volume of studies in police administration and the need to have a method for integrating literature from general management and organization, as well as social science disciplines with police research literature. The selected conceptual framework was derived from a model developed in sociology conducting comparative analyses of organizations. This original model, designed to be organizationally independent, was modified to include many subjects of interest to police practitioners and researchers. The selected conceptual framework includes 40 separate variables, each addressing a unique subject, organized into 6 conceptual cluster areas. Each of the 40 variables were operationally defined to guide study data collection and analysis efforts.

A two-phase document selection and review strategy was used to select research studies for analysis. First, indices from a set of target journals were reviewed to select those studies which appeared to be empirical and focus on variables incorporated in the conceptual framework. The target journals were the Journal of Police Science and Administration, the Journal of Criminal Justice, and the Journal of Criminal Law, Criminology, and Police Science for the police sample, and the Administrative Science Quarterly for the non-police sample.

Identified articles were collected and reviewed. Each article was reviewed and coded utilizing a standardized coding sheet which extracted

information concerning the study's content, methodology, and findings. Researchers identified relationships between variables examined in the study and included in the conceptual framework. Relationships were coded as either positive, negative, or neutral. These coding sheets were used to deduce a knowledge base on police management, organization, and administration.

In reading these articles, staff researchers were directed to compile a secondary source listing of articles for review by noting relevant citations in selected documents. This listing constituted the second phase of the selection and review strategy. Documents included on this listing were reviewed using the same coding sheet as used for the first phase documents.

Two additional sources were used for the second phase of the document selection and review strategy. Special listings of research projects in policing were obtained from the National Criminal Reference Service (NCJRS). These source listings were reviewed and pertinent documents were retrieved from the NCJRS holdings for analysis. In addition, a special "profile run" of grant reports for research sponsored by the National Institute of Law Enforcement and Criminal Justice was obtained from the Department of Justice. This source listing was used to identify grant reports to be reviewed for this synthesis.

This two-phase process of collecting and reviewing first journal articles and then other secondary sources resulted in a large collection of studies in police science and administration, as well as other disciplines. In total, 485 research studies were reviewed as part of this analysis. This total includes 292 police research studies and 193 non-police studies.

Two forms of analysis were utilized in completing this synthesis. The first was a descriptive analysis of each conceptual cluster. This analysis included a synthesis of the content areas and methodologies used in sampled studies. The review of study methodologies featured analyses of research designs and analytical procedures. A comprehensive synthesis of descriptive findings was produced for each conceptual cluster.

The second form was an inferential analysis of collected studies. Whereas the descriptive analysis was essentially an itemizing of findings from reviewed studies, the inferential analysis incorporated a critical review of the content area of selected studies with a focus on comparing and contrasting study results. The primary thrust of the analysis was whether a study's findings were generalizable and, thus, knowledge could be derived from study results. Many of the reviewed research studies contained methodological weaknesses and their findings were not generalizable.

The inferential analysis yielded three assessments concerning each conceptual cluster. These were assessments of knowledge base strengths, knowledge base weaknesses, and the contribution of research results to the state of the art. This last assessment was used in developing policy-relevant conclusions concerning the specific content area under analysis.

## Summary of Key Study Findings

The synthesis of sampled police research is presented in six separate chapters organized in order of the cluster areas included in the study's conceptual framework. The following paragraphs summarize the key findings for each conceptual cluster area.

1. __Environment and Organizational Autonomy__. This conceptual cluster included five variables: (1) Environment Aggregate, (2) Environment: Relational and Structural Characteristics, (3) Organizational Age, (4) Legal/Political Autonomy, and (5) Functional/Economic Autonomy. Sampled research studies from the police literature focused extensively on the first two of these variables and, to a lesser extent, on Functional/Economic Autonomy. Only a small number of studies addressing Legal/Political Autonomy were located in the literature. No studies on Organizational Age were identified. Knowledge derived from studies of police organizations was augmented by studies in other disciplines focusing on interorganizational relations, environmental uncertainty, and organizational autonomy.

An analysis of the sampled literature demonstrates that a preponderance of studies were exploratory and qualitative, particularly those examining police-citizen interactions. Studies focusing on economic issues tended to utilize more sophisticated analytical designs.

The review of sampled studies yields several conclusions regarding the state of the art of existing knowledge regarding environment and organizational autonomy. These conclusions are summarized below:

a. The development of locally centered governments and police organizations in the United States places restraints on adaptation to broad community needs by the police. The dual police role of guaranteeing individual rights and maintaining the social order causes the police to be viewed as symbols of authority.

b. Socioeconomic status of the community significantly affects citizen perceptions of the police. Experience with the police also is a prime determinant of citizen perceptions. Prior victimization is less of a factor in influencing perceptions.

c. Perceptions of increased volatility in the community and in the environment results in more flexible, less hierarchical structures and greater decentralized decision-making with more input from line and staff levels.

d. The literature presents two theories of the police-citizen interaction: The notion of deference exchange and the citizen advocacy theory. Little research has been initiated to reconcile differences between these two notions.

e. Community income levels and crime rates are equally important determinants of expenditures for police service. Other socioeconomic factors and community composition variables are correlates of both income levels and crime rates. The interplay of these variables results in larger communities spending proportionately more tax revenue for police services than smaller communities.

f. Cities with city manager forms of government spend more for police service than cities with alternative governmental forms. The sampled literature, however, does not suggest that such increased expenditures result in enhanced organizational performance.

2. __Complexity of Goal and Task Structure__. The second conceptual cluster included seven distinct variables: (1) Diversity of Objectives, (2) Number of Objectives, (3) Geographical Dispersion, (4) Variability of Tasks, (5) Organizational Size: Members, (6) Organizational Size: Resources, and (7) Organizational Size: Clientele. There were only a minimal amount of studies in the police field identified and sampled addressing these subjects. The only topic which has been examined in any depth is Organizational Size: Members. The sampled research studies from other disciplines provided detailed knowledge on size of the organization, as well as variability of tasks within an organization.

The methodologies of sampled studies were largely exploratory. The methods of analysis used in sampled studies varied, although a significant percentage of the police studies employed either bivariate or multivariate analytical designs. Virtually all of the studies in other non-police disciplines utilized these more sophisticated research designs.

Reviews of sampled studies addressing the variables included in this conceptual cluster resulted in the formulation of several conclusions regarding the state of the art. These conclusions are summarized below:

a. Police organizations adopt "operational styles" because of community prioritization of services and diversity in goal and task structure. Operational style is two-dimensional: agencies have an enforcement style and a service style. Efforts to introduce an enhanced enforcement style are usually accompanied by increased managerial efforts to coordinate and control the work effort.

b. Geographically dispersed work units are found in organizations where work functions are similar, workers are experienced, extensive rules and procedures are not required, and large supervisory spans of control are evident. Geographical dispersion is not necessarily associated with decentralization of authority.

c. Organizations with a highly variable task structure can better coordinate employee behavior through non-bureaucratic managerial systems. Traditional police supervisory systems may be inappropriate given the high level of variability in the police task.

d. Studies examining the effect of size of the police agency raise serious doubts relative to the efficacy of traditional notions about large police agencies. These studies demonstrate that agency size has no relationship to citizen perceptions of police effectiveness or feelings of security; size is not related to decreased expenditures for police service. Such studies, however, measure only one outcome of organizational size--citizen perceptions. Since perceptions are influenced by socioeconomic characteristics and experience with the police and there are other, valid outcomes of police service, it is not possible to deduce overall conclusions regarding the effects of size of the police agency.

e. Larger organizations have more complex internal management structures, including increased bureaucratic, administrative control elements, and employ larger administrative/managerial staff components.

   3. Internal Structural Differentiation. The third conceptual cluster included eight unique variables: (1) functional specialization, (2) departmental specialization, (3) technological complexity, (4) skill structure, professionalism, and four variables addressing internal stratification in organizations, (5) sex, (6) race, (7) seniority, and (8) education. The content of sampled police studies was centered on four subjects: skill structure and professionalism, racial stratification, seniority, and education. The sampled non-police research literature yielded valuable knowledge regarding the effects of division of labor and technology on management and organizations.

   Sampled research in policing employed primarily exploratory or case study research designs. This was also the case for studies in other, non-police disciplines.

The analysis of sampled research studies provided several conclusions concerning the state of the art regarding internal structural differentiation. These conclusions are summarized below:

a. Larger organizations generally have a greater division of labor. Increased division of labor in organizations results in flatter, as opposed to taller, organizational structures. Increased division of labor is positively associated with greater proportions of management personnel.

b. Technological complexity is one primary element of organization structure: the others are organization size and division of labor. Increasing technological complexity is positively associated with decreasing management authority and declining worker perceptions of autonomy.

c. Professionalism is often conceptualized differently in police research studies than in non-police studies. Police researchers tend to view professionalism as an organizational attribute, while researchers in other disciplines analyze professionalism as an individual worker attribute. Greater individual worker professionalism is associated with less bureaucratic management systems.

d. Seniority in policing affects individual attitudes and value systems.

e. Education of police officers is positively correlated with improved performance and with police officer belief systems (increased education is associated with declining dogmatism). Education is not related to cynicism and satisfaction among police officers.

   4. Organizational Coordination and Control. This conceptual cluster incorporated 13 unique variables which were grouped into 4 sub-cluster topical areas for purposes of analysis. The four topical areas were: (1) Traditional, Bureaucratic Modes of Coordination and Control, (2) Non-Bureaucratic Modes of Coordination and Control, (3) Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization, and (4) Organizational Maintenance Activities to Coordinate and Control the Human Enterprise. Research in policing tended to focus on individual employee related concerns such as discretion, supervision, recruitment, and training, while devoting much less attention to organizational structural issues, or ongoing administrative processes, such as decision-making. The non-police research literature contributed substantial knowledge on these structural and administrative subjects.

Analysis of the methodologies employed in police research studies demonstrates that existing, sampled studies almost exclusively utilized exploratory or case study research designs. A large percentage of the non-police research literature also relied on exploratory or case study designs. A significant percentage of both the police and the non-police literature incorporated multivariate analysis techniques. This was due to the focus on attitudinal and biographical data to measure many of the variables included in this cluster.

Several conclusions were developed regarding the state of the art of organizational coordination and control mechanisms and practices. These conclusions are summarized below:

a. Formalized/written rules and procedures have little effect on employee performance.

b. Hierarchical organization structures appear to be more appropriate in organizations employing a less professionalized work force. Many police officers actually prefer a hierarchical structure. Individual police personality attributes may contribute to this preference.

c. Concentration of decision-making authority is associated with large spans of control in organizations. Division of labor is associated with smaller spans of control.

d. Larger administrative staff components are generally found in larger, more hierarchically structured organizations. Decentralization in policing is associated with increased need for managerial support staff.

e. Participative management, or management by committee, is positively associated with employee satisfaction and commitment, but not with individual performance or organizational effectiveness.

f. The use of normative incentives (feelings of importance, involvement) is positively associated with employee satisfaction, commitment, and performance.

g. Peer influence may be the prime determinant of the application of police discretion, although day-to-day situational factors, socioeconomic status of the community, management expectations, and police officer personal characteristics all play a role in influencing discretion.

h. Formalized policies, training, and supervision have little impact on police discretion.

i. Decentralization of decision-making authority is positively associated with client evaluations of the organization, employee satisfaction, employee social cohesion, and increased size and enhanced role of administrative support functions in organizations.

j. Police supervisors have little control over police officer behavior due to the police occupational culture, variability in the police task structure, and a limited power base in the supervisory position.

k. The adoption of an initiating or a consideration supervisory style will enhance employee satisfaction and commitment: an initiating structure is more appropriate where the job task is varied: a consideration structure is more appropriate where a task structure is more routine.

l. A variety of police individual characteristics, as measured in recruitment and selection, are positively correlated with performance. These characteristics describe individual intelligence and personality. Certain biographical factors are also prime determinants of future performance.

m. Police academy performance and probationary supervisory evaluations are predictors of individual performance.

n. Police training systems do not adequately prepare recruits for the uncertainties to be faced in day-to-day operational situations.

Informal Organizational Structures. Three distinct variables were included in this conceptual cluster: (1) Employee Adaptation, (2) Social Cohesion, and (3) Satisfaction/Alienation. The subject of employee adaptation has been one of the most popular topics of research in policing. This variable encompasses studies of cynicism, individual personality, and employee commitment. Similarly, employee satisfaction has been researched extensively in the police organizations. The sampled literature depicts a much smaller emphasis on group cohesion. This subject has been examined in considerable detail in the non-police literature, as has satisfaction/alienation.

As was the case with previous conceptual clusters, the sampled research literature incorporated primarily exploratory or case study research designs. This was the case for both sampled police and non-police studies. A considerable percentage of the sampled police studies employed bivariate or

multivariate statistical analyses. Virtually all of the non-police studies sampled for this cluster utilized such analytical techniques.

Analyses of the sampled studies focusing on informal organizational structures resulted in the development of several conclusions concerning the state of the art. These conclusions are summarized below:

a. Research demonstrates that police officers are cynical. There is no one conclusive set of propositions, however, explaining how police officers become cynical. There is confusion over measurement of cynicism. Further, there are disagreements as to what has the predominant impact on cynicism: individual attributes or socialization.

b. Police officers have also been shown to be authoritative and dogmatic. There is little consensus, however, as to measurement of these personality attributes. There is also disagreement over what influences these personality traits most strongly: individual attributes or socialization.

c. Management systems which promote greater work group interaction are positively associated with improved performance and individual satisfaction.

d. Individual employee satisfaction is not necessarily associated with improved performance or organizational effectiveness.

e. Certain organizational/management factors are associated with employee satisfaction. Factors which are negatively associated with satisfaction are formalization/written rules, hierarchical levels, and concentration of authority. Factors which are positively associated with satisfaction are variability of tasks, feedback from management, and participatory supervision.

f. Education levels of police officers are not associated with satisfaction. Employee cynicism is negatively associated with satisfaction. Cynical and educated officers are more likely to be dissatisfied.

Organizational Achievement. Four distinct variables were included in this conceptual cluster: (1) organizational effectiveness, (2) organizational change, (3) public support/legitimacy, and (4) individual performance. Each of these subjects, with the exception of organization change, was examined extensively in the police literature. The subject of organization change was addressed in numerous non-police studies; findings from these studies added significantly to the knowledge base on this subject.

Although the sample of studies focusing on organizational effectiveness and individual performance is large, there is considerable diversity in the definition of these variables. This is true for both police research and other non-police research. These differences in measurement hamper the development of knowledge regarding these topics.

The sampled police studies employed almost exclusively exploratory or case study research designs. Many sampled non-police studies also were exploratory, although there was a greater proportion of studies in this sample which utilized quasi-experimental or experimental designs.

Several conclusions were developed concerning organizational achievement. These conclusions are summarized below:

a. Traditional measures of police effectiveness are less than adequate due to many methodological difficulties in measurements of effectiveness. Consequently, very little knowledge concerning attributes of organizational effectiveness can be posited in this synthesis, although reviewed research studies have illustrated several correlates of effectiveness.

b. Larger, more differentiated organizations are more apt to adopt change and innovation than smaller organizations.

c. Effective organizational change requires careful planning for change, a limitation on the number of changes to be introduced at any one time, and managerial efforts to sustain the effected change once it is introduced.

d. Citizens react positively when asked generalized questions regarding the role of the police, but elicit more negative sentiments when asked specific questions regarding police behavior, procedures, or organizational effectiveness or efficiency.

e. Several factors are associated with citizen perceptions of the police. Among these are: norms and values of the police, socioeconomic characteristics of the community, the crime rate, and perceived access to public agencies.

f. Individual motivation and educational level are positively associated with individual performance. Intelligence is a determinant of both motivation and educational level.

g. Available, sampled research in policing conceptualizes performances largely as departmental history and/or experiences, not as productivity or behaviorally anchored job dimensions.

## Summary of Recommendations for Further Research

Numerous topics for further research were identified throughout this synthesis. These topics were developed from either knowledge base weaknesses in the literature or from conflicts evident in the sampled literature. The suggested topics for further research are summarized below in order of conceptual cluster. It should be noted that no attempt has been made to prioritize the relative importance of these research topics. Such an effort was beyond the scope of this study. Further, this summary itemizes only the topical content area for further research and does not necessarily elaborate on the specific focus of needed further research. More detailed information on these suggestions can be found in the respective chapter of this report.

1. **Environment and Organizational Autonomy.** There are needs for additional research addressing:

a. Community culture and the police. This research should consider the effects of socioeconomic characteristics on perceptions of the police.

b. The relative influence on socioeconomic characteristics on police perceptions of the community.

c. The relative influence of changes in the crime rate on police organizational structure and decision-making.

d. The effects of perceived "environmental uncertainty" in police organizations.

e. The relationship of form of local government to police organizational and management structure, management decision-making, and organizational performance.

f. Interorganizational relationships among police agencies and between police organizations and other local agencies.

g. Police-citizen interactions with a view toward reconciling the differences between the deference exchange theory and the citizen advocacy theory of police-citizen interactions.

2. **Complexity of Goal and Task Structure.** This synthesis has

identified the need for further research examining:

a. The relationship of organizational style in police agencies to management structures, interpersonal relationships, and organizational and individual performance.

b. The effects of geographical dispersion of police work functions and activities.

c. Alternative supervisory styles and their relationship to variability in police tasks and activities.

d. Differences between small and large police organizations utilizing alternative outcome measures of police effectiveness.

e. Variations in management coordination and control systems in large, as opposed to small, police agencies.

3. **Internal Structural Differentiation.** Analysis of sampled research addressing variables in this conceptual cluster highlighted the need for additional research defining:

a. The effects of division of labor in police organizations with a particular emphasis of the effect on division of labor on the organizational structure and the role of managerial, supervisory personnel.

b. The impact of functional specialization of work activities on the police organization.

c. The impact of technology on police organizational structure, levels of authority, and individual officer perceptions.

d. The relationships between organizational professionalism (largely associated with organizational effectiveness and efficiency) and individual professionalism (primarily defined as individual job enrichment).

e. The relative effect of education levels of police officers on individual knowledge, skills, and abilities.

f. The impact of increased sexual and racial stratification in police agencies with a specific analysis of the relationship between such stratification and individual

officer values and norms, as well as social cohesion in the work force.

4. **Organizational Coordination and Control.** This conceptual cluster focused on four sub-cluster topical areas. Research of topics included in these subject areas pinpointed needs for additional research addressing:

a. The relative influence of written rules and procedures on performance, utilizing alternative definitions of performance other than conformity to rules and procedures, and controlling the effects of peer influence and social cohesion on performance.

b. The effect of perceived professionalism among police officers on perceptions of hierarchical organizational control systems.

c. Variations in span of control, manager ratio, and the attendant effect of such variations on productivity and informal organizational structures.

d. The use of incentives as a management tool in policing with a specific interest in analyzing the relationship of incentives on individual motivation.

e. Alternative management control and authority systems in policing with a particular view in analyzing the ultimate impact of decentralization of authority on organization structure, managerial and supervisory roles, and individual and organizational performance.

f. The influence of initiating and consideration of styles of supervision on individual performance levels and organizational effectiveness.

g. Supervisory and management training in policing and the effects of such training on individual performance, work group interaction, and organizational effectiveness.

5. **Informal Organizational Structures.** Analysis of research studies examining three variables in this cluster identified the need for additional research focusing on:

a. The relationships between police attitudes, value systems, and performance levels with controls for individual background characteristics and socialization in police agencies.

b. The influence of jurisdictional variation in police personality traits with an interest in segregating the influence of environment on personality characteristics.

c. The relative effects of group solidarity, seniority, professional identity, and rank on individual commitment.

d. Police employee organizations with quantitatively-oriented analyses of the effects of employee organizations on individual performance, organizational productivity, and internal management control and coordination systems.

e. The role of the work group in the police organization with an emphasis on management practices enhancing group interaction.

f. The relationship between individual satisfaction/ alienation and performance levels.

6. **Organizational Achievement.** Reviews of research studies addressing organizational achievement highlight the need for further research addressing:

a. The relationship between managerial and administrative practices and organizational effectiveness: alternative measures of police effectiveness should be utilized to acquire more practical information as to the relative importance of various managerial activities and decisions.

b. The quantitative influence of specific managerial and administrative practices on employee acceptance of change.

c. Behaviorally-oriented police performance characteristics (e.g., knowledge, skills, and abilities) with an interest in determining what individual and organizational factors influence these characteristics.

d. The relative influence of incentive systems, supervisory styles, and alternative organizational arrangements on individual performance.

## Study Significance and Contribution

This synthesis of research affecting police administration provides a significant contribution to the state of the art. The synthesis has shown that much existing research in policing has followed definite patterns and tended to focus on the role, personality, and activities performed by the individual police officer. This interest has extended to research on the administrative process of hiring, training, and supervising the individual officer. There has been much less research on the police management and organizational structure, the roles of individual actors within the police organization, the internal decision-making process within the police organization, and organizational relationships between the police organization and other governmental agencies.

This synthesis has also demonstrated that much research in policing has been exploratory in design and very often includes only qualitative or descriptive analyses. More recently, research has incorporated more sophisticated research designs but, nevertheless, a considerable proportion of reviewed police research studies contained methodological weaknesses. Further, reports of police research studies are often atheoretical and do not, in some instances, compare study results with findings in other disciplines.

The synthesis provides a valuable contribution in reporting policy-relevant findings concerning the status of police management, administration, and organization. Reviewed research studies, in some cases, confirm theoretically-based management and organization principles. In other cases, research findings raise questions concerning the efficacy of certain traditional notions regarding police management and organization.

Further, this synthesis provides a valuable contribution in yielding a research agenda for future research in police management, administration, and organization. This research agenda was based on identified, sampled studies. Certainly, there may be other pertinent research studies which either complement or contradict the findings outlined in this report and used in preparing the research agenda. Thus, there is a need to continue an analysis of the state of the art and assess the relative value of other published research studies.

One tangible product of this research is the provision of a discipline--independent, comprehensive conceptual framework for the analysis of police management and organizational studies. This analytical tool is a contribution in itself and serves as an analytical tool which can be used in further syntheses of research affecting police administration.

## INTRODUCTION

In November, 1979, Public Administration Service received a contract from the National Institute of Law Enforcement and Criminal Justice (the Institute) to conduct a synthesis of research affecting police organization and management. This study has been considered an important research effort for the organized and systematic advancement of knowledge in the areas of police organization and management. The Institute has duly recognized that, to date, there has only been a modest investment in police management research, although there is a considerable body of prescriptive literature on police organization, administration, and management. Further, the Institute has recognized that existing police management research has not been analyzed critically with a view toward defining the state of the art and recommending topics for future research.

Considering these needs, the goals of this study were to provide a research agenda for future police management research by identifying the strengths and weaknesses of existing published research, and yielding a comprehensive up-to-date review of existing information and knowledge regarding police management and administrative practices and organizational considerations. Three specific study objectives were formulated to achieve these goals. These objectives were:

1. To identify those books, monographs, and articles produced by social scientists and criminal justice scholars which have particular relevance to the management of police organizations.

2. To analyze the content of those works, focusing specifically on those which have produced knowledge--empirical findings generated by methodologically sound research procedures.

3. To compile those findings into a coherent synthesis, identifying the strengths and weaknesses and the absolute gaps in knowledge regarding police management and administration.

The primary focus of this synthesis is on police management literature. The study has also given supplemental consideration to a review of the general management and social science literature. This secondary focus has facilitated an analysis of relevant research studies in other disciplines. Where possible, empirical findings from these studies have been synthesized with those resulting from police research studies to compile knowledge on police management and organization.

One initial study objective was the identification of "absolute knowledge gaps" regarding police management and administration. This objective, in retrospect, was quite ambitious given the resources available to complete this study. A more appropriate objective would have been simply to illustrate knowledge base strengths and weaknesses in the research literature.

In a similar vein, this study is not intended as an exhaustive review of the state of the art of all managerial, administrative, and organizational topics. Again, resource limitations prohibited the synthesis of certain relevant research literature, predominantly in the general management and social science disciplines. Instead, the study should be viewed as a critical review of a substantial sampling of the research literature. The findings concerning the state of the art are thus generalizable to this sample and, not necessarily, to all management and organizational literature.

This report contains eight chapters. The first chapter presents a detailed description of the study methodology, including definitions of the management and organizational subjects analyzed, the document-gathering and review process employed, and the analysis techniques used in deducing syntheses of the research literature.

Chapters II thru VII present analyses of specific managerial and organizational and subject matter. The content of these chapters is presented in order of the conceptual clusters appearing in the study's conceptual framework, as presented in Chapter II. A summary and conclusion regarding the strengths and weaknesses of existing, sampled research is presented in each chapter.

Chapter VIII presents an overview of the significance and contribution of this study. Included in this chapter is a summarized critique of the state of the art of the content and methodology of the sampled police research literature.

## I. DETAILED METHODOLOGY

### FOR

### "A SYNTHESIS OF RESEARCH AFFECTING POLICE ADMINISTRATION"

#### Study Parameters

The first step in this project was a definition of explicit study parameters. This project was admittedly quite broad at the onset, due primarily to the nature of the subject matter. The terms "management" and "administration" bring to mind many concepts and ideas depending on the background of the individual using these terms.

Management theorists and practitioners alike often refer to three separate and yet different concepts all under the umbrella of management and administration: the organization or institution, the work group, and the individual. Peter Drucker, for example, defines management as an "organ of the institution" with three principal tasks (Drucker, 1973:1-2):

- The specific purpose and mission of the institution, whether business, enterprise, hospital, or university.

- Making work productive and the worker achieving.

- Managing social impacts and social responsibilities.

Further, research in the fields of management and administration transcends many disciplines. The scope of this research, therefore, will vary with the background and experience of the researcher. Knowledge in management and administration has been generated and disseminated by sociologists, psychologists, political scientists, management/organization theorists, and economists, among other professionals. The medium for transmitting this knowledge will thus cross many disciplines.

It was necessary to reduce the scope of this study because of this diversity in definition and interpretation of management and administration and because of the resource limitations placed upon the study. Five distinct parameters were chosen to narrow the project's scope. The project's Advisory Board and monitor from the National Institute of Justice agreed upon these limitations at an early project meeting. These parameters are described in the following pages. They are:

- A decision to include a sampling of research studies from the general management and social science disciplines to provide a comparative base for analyzing police studies.

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- A decision to limit the study's domain to only empirical research studies to facilitate the identification of a knowledge base on police management and organization.

- A decision to eliminate from consideration research studies that focused primarily on police operational content topics.

- A decision to eliminate from the scope of the study research that focused on the management activities and style of the police chief executive.

- A decision to limit the research to only research reports published in the United States.

## Inclusion of a Sampling of Research Studies from the General Management and Social Science Disciplines

First, the study was designed to include a sampling of the works of management specialists and non-police social scientists to draw upon a comparative source of knowledge concerning management and organization.[1] The police field has been criticized for being parochial and not integrating the findings from social scientific studies into its analyses of management and administration. There is little doubt that much can be learned from such studies. The general management literature analyzes numerous theories and concepts which are directly applicable to the police discipline. Moreover, this literature contains many reports of studies which are methodologically sound and permit the development of inferences to guide managerial and organizational theory.

## Limiting the Study to Only Empirical Research Studies

Secondly, the project will be limited to only those studies which rely on empirical research. This limitation was necessary to deduce a knowledge base concerning the many facets of police management. Although there are many excellent published works which prescribe sound managerial and organization police practices or develop a theory concerning some topic in police management, these works generally provide information and not knowledge. This limitation by no means demeans the quality or the value of these works. In fact, many organizations, including police agencies, have relied upon such

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[1]/The project resources limited analyses of general management and social science literature to a sampling of articles and texts. For further discussion on this matter see Section III--Data Collection and Review Procedures.

prescriptive texts as a foundation for many organizational and managerial practices. The limitation is based on the fact that many such texts posit theories not accompanied by research findings derived from valid, empirical observations. Therefore, it is not possible to develop a knowledge base from these works.

By way of illustration, consider the subject of participatory management. Many police textbooks contain descriptions of the benefits of participatory management schemes to accommodate employee input in decision-making. These prescriptions may certainly be well founded. They frequently are not accompanied, however, by research findings based on methodological designs. Such studies do not, therefore, provide knowledge about the positive and/or negative results which may occur with the introduction of participatory management systems.

The term "empirical research" may be subject to several definitions. It was thus imperative to establish an operational definition of empirical research for this study. The adjective empirical is defined by Webster as "relying on experience or observations alone often without due regard for system and theory, capable of being verified or disproved by observation or experiment" (Webster's New Collegiate Dictionary, 1979). Applying this definition to police management, the obvious linkage is to include those studies which produce observations or propositions primarily based on sense experience and/or are derived from such experience by methods of inductive logic.

This definition neither limits the project domain to those research studies which are totally quantitative nor those which are totally qualitative. Rather, it focuses the parameters of the study on research projects on police organization and management which include some form of documented observation or sense experience. The research designs of selected studies may vary, therefore, from survey research to experimental.

Further, this study will be limited to the topic of police management and organization. This is admittedly a broad topic. By design, however, it will exclude two areas of inquiry. This narrowing of the project scope was designed to reduce the potential of redundancy between this project and other simultaneously funded studies of the National Institute of Justice. This limitation eliminated from consideration studies in two topical areas.

## Elimination of Studies that Focused on Police Operational Subjects

Research literature that was primarily operational in content was not reviewed for this study. This includes those works that study police patrol operations, including special police patrol operations, such as special tactical patrol strategies or techniques, the criminal investigations process and the management of this function, traffic enforcement, crime analysis and crime prevention efforts, and criminalistics or forensics. In addition,

related topics such as patrol allocation and police communications will not be included. The exclusion of these subjects by no means denigrates the research efforts undertaken in these areas of inquiry. Rather, this limitation was set to avoid duplication with work being completed under a separate grant entitled, "A Synthesis of the Results of Police Operations Research" (Grant No. 78-NI-AX-0061).

### Elimination of Studies that Examined the Role of the Police Chief Executive

Further, research literature that focused on the management activities and style of the police chief executive was also eliminated from consideration. This includes all behavioral studies, such as research that analyzes the police chief executive's use of time, and those studies which focus on the working relationships of the police chief executive with city government officials, middle management, or the police employee organization. Again, this limitation is not meant to minimize the importance of such research inquiries. The limitation was drawn to avoid duplication with another study funded by the National Institute of Justice entitled research on "The Nature of the Police Executive's Work" (Grant No. 78-NI-AX-0095).

### Limiting the Study to Research Published in the United States

As a final limitation to the project's scope, the study was limited to research published in the United States. While there are many fine works on organizations in general and police agencies in particular which have been published abroad, the resource limitations of this project did not permit review and analysis of these studies. This is not to say that the study will not examine cultural influences on policing. This subject is included in the analysis of environmental influences on the police organization. Data for this section, however, will be extracted from studies published in the United States.

### Conceptual Framework

A key task in any research endeavor is selecting a conceptual framework to guide data collection and analysis efforts. The selection of this framework was a major decision in this study because of the sheer volume of studies in police administration and the need to have a method for comparing the non-police literature with police studies. Two approaches were considered by the project staff, its Advisory Board, and National Institute of

Justice; the systems approach and the sociological approach.[2] A synthesis of these two was developed and chosen for the study. Each of these approaches is described below.

### The Systems Approach

The systems approach may be described as the traditional approach to organizational analysis in the police profession.[3] The systems approach involves identifying inputs of various types which exist in the police organization environment, identifying a throughput process which receives, interprets, and processes these inputs, and describing outputs which are delivered by this process back to the larger environment. The systems approach suggests that organizations are open social systems which consist of the patterned activities of a number of individuals (Katz and Kahn, 1966).

From the perspective of police administration, inputs are characterized as either functional (people, money, and ideas), programmatic (including the specific requests received by police organizations for their services, as well as the immediate social conditions which give rise to those demands), or environmental-cultural conceptions and popular opinions relevant to crime, law, and the police. In short, it includes all those environmental or cultural conditions which may not lead to specific demands for police services, but which indirectly affect the structure and functioning of the police organization.

Functional inputs are normally processed by unique administrative units or systems within the organization. People inputs are processed by personnel and training systems, money inputs by financial systems, and idea inputs by planning systems.

Programmatic inputs are also received and processed in system terms, generally through the operational units of police agencies. Systems of

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[2] This is not to imply that these are the only two frameworks which may have been pertinent to this study. There are undoubtedly many other frameworks which could have been tested had the intent of this study been to develop and test a series of models for synthesizing police and non-police management literature.

[3] This terminology is not to imply a framework that is advanced in age, but one that is commonly used in texts on police organization and management. See, for example, Bernard L. Garmire (ed.) Local Government Police Management (Washington, D.C.: International City Management Association), 1977; Paul M. Whisenand and R. Fred Ferguson, The Managing of Police Organizations, 2nd ed., (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1978).

patrol, criminal investigation, specialized law enforcement, and a host of ancillary support functions, such as communications, crime prevention, and criminalistics, are constructed within the police agency to process these inputs.

Environmental-cultural inputs are normally processed through the police organization by community relations or public relations systems. Under this throughput system are included many of the informal activities and processes which are an important part of the organization-environment interface. The street level interactions of the police officer with citizens, the participation of the police chief executive in civic, cultural, and business organizations are just two examples of organizational methods of receiving and processing environmental-cultural inputs.

All of these discrete throughput systems are linked together by two overarching elements of the police organization, generally referred to in the literature as organizational structure and management style. These elements include the formal mechanisms or factors, as well as the personal dynamics, which management uses to tie these systems together to form an organization to achieve specified goals and objectives. Organizational structure includes the various methods and techniques, usually associated with bureaucratic systems and processes, used to carry out the work effort. Topics such as centralization of authority, formalization of rules, policies, and directives, specialization of tasks, and division of labor are included in this dimension. Management style is more informal in nature and largely dependent on the police chief executive. Such topics as executive professionalism, delegation of responsibility and authority, and participative management are informal systems, primarily constructed from the style of the police chief executive.

The systems approach identifies unique outputs for each of these throughput processes. Thus, an analyst of any organization can use the model to discern which outputs are produced for given inputs from the throughput systems and processes. This relationship of inputs, throughputs, and outputs is depicted in Figure 1. A study of these relationships, and to what extent they function as prescribed, would be a study of police management and organization using the systems model.

The systems model is important because it clearly defines the relationships between many inputs and internal police management systems, as well as outputs of these systems. In this sense, it is easily applied to police organizations.

If this framework were selected, research for this study would focus on the degree to which previous studies have demonstrated the actual workings of this system. Among the questions to be answered are the following: are the identified outputs actually produced by the throughput systems; how are specified inputs actually processed through the police organization; what

Figure 1

THE SYSTEMS APPROACH

| INPUTS | THROUGHPUTS | OUTPUTS |
|---|---|---|

Functional
- People — Personnel System — Satisfaction/Morale
- Money — Financial Systems — Efficiency
- Ideas — Planning and Development Systems — Agency Innovativeness
- Training Systems — Officer Professionalism

Programmatic
- Crime Mix
- Service Demands
- and
- Social Antecedents — Operation Systems (and Support) — Effectiveness

Environmental Cultural
- Values
- Political Demands
- Cultural Prescriptions — Community and Public Relations System — Popular Support

Organizational Structure

Managerial Style

knowledge does the research provide about the relationship of organizational structure to system throughputs and then to outputs; and what does previous research indicate concerning the role of the informal organization and the individual in this open system?

## The Sociological Framework

The second approach considered is termed the sociological approach because it is borrowed from the discipline of sociology and was developed to facilitate comparative analyses across different organizations. This sociological framework was constructed by Heydebrand (1973) during the early 1970's in an effort to build a verified, organizationally independent, general theory of formal organizations.[4/] It was developed through reviews of 29 articles comparing the results of empirical research for two or more organizations. The types of organizations examined in these studies varied widely: eight articles studied businesses, ten studied professional or service organizations, four studied voluntary associations, two studied government agencies, and five studied combinations of various types of organizations. None of the studies examined police agencies.

The conceptual framework devised by Heydebrand included 23 distinct organizational variables. Through inductive analysis, he grouped like variables into conceptually linked clusters which he referred to as "the dimensions of organizational analysis" (Heydebrand, 1973:11-28). His titles for those clusters and the specific variables included within each are presented in Table 1.

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[4/]Heydebrand's discussion may be found in Heydebrand, Wolf V. (ed.) Comparative Organizations:  The Results of Empirical Research (Englewood Cliffs:  Prentice-Hall), 1973.

Table 1

CONCEPTUAL FRAMEWORK
by Wolf V. Heydebrand (1973:13)

Developed for Comparative Analyses of Organizations

| Conceptual Cluster | Specific Variables |
|---|---|
| Organizational Environment and Autonomy | 1. Environment: Aggregate Characteristics<br>2. Environment: Relational and Structural Characteristics<br>3. Organizational Age<br>4. Legal and Political Autonomy<br>5. Functional and Economic Autonomy |
| Complexity of Goal and Task Structure of Organization | 6. Diversity of Objectives<br>7. Number of Objectives<br>8. Geographical Dispersion<br>9. Variability of Tasks<br>10. Organizational Size:  T = Task, R = Resource, P = Personnel, M = Members<br>11. Organizational Change<br>12. Organizational Effectiveness |
| Internal Structural Differentiation | 13. Functional Specialization<br>14. Departmental Specialization<br>15. Technological Complexity<br>16. Skill Structure, Professionalization |
| Organizational Coordination and Control | 17. Committees<br>18. Incentives:  M = Material, X = Social, N = Normative<br>19. Formalization, Written Rules<br>20. Hierarchical Levels<br>21. Span of Control; Manager Ratios<br>22. Administrative Staff and Communication; C = Clerical; S = C + Other<br>23. Decision-Making<br>24. Other |

This framework was selected for consideration because of its use in comparative organizational analysis, its foundation, devised from empirical research, and its development independent from the field of police administration. Further, this model was developed inductively through the identification of discrete variables that were grouped together into one larger framework of common clusters of variables. The systems approach, in contrast, was designed deductively, working "downwards" from general theoretical suggestions to a more specific, workable framework that included major elements of the police organization.

The major contribution of Heydebrand's work for this study on police management is his recognition that although there are clusters of like variables, many organizational studies actually cut across these clusters and analyze several variables and the relationships between them. In this way, researchers analyze the impact, for example, of environmental influences on organizational coordination and control systems, and of the complexity of task and goal structures on methods of internal structural differentiation. In essence, his framework presents an open system of interconnected concepts and ideas, not a series of closed systems wherein specific inputs foster certain throughputs, which in turn produce specific outputs. The model is flexible in that in each cluster certain variables can relate to each other while at the same time relating to variables in other conceptual clusters.

The sociological framework is directly applicable to this study of police management practices. The interrelationships suggested above could be analyzed by assessing directions of specific relationships produced by empirical research. In this way, it would be feasible to tabulate those relationships, synthesize their validity and reliability given the research methods employed, and then build a knowledge base describing the state of the art in contemporary police administration. Directions in relationships could be pinpointed through use of a coding scheme which would indicate whether there was a positive relationship, a negative relationship, or no relationship.

## Selecting a Synthesis

Both the systems and the sociological frameworks had certain assets for purposes of this study on police management. The traditional or systems framework had two primary benefits. First, it was very directly usable in the police field. Many of the topics subsumed in this framework coincided directly with police management research. Secondly, it had a moderate level of generality and tended to focus on topics and not on variables. This would permit the inclusion of a wide variety of research studies focusing on particular management functions or processes (e.g., training, personnel). In short, it would have allowed the casting of a wider net in gathering relevant books and articles.

The sociological framework had three specific assets. First, it would easily facilitate the comparison between police and non-police disciplines. The specific variables are general in form and not linked to any one form of organization such as police. Secondly, the model contained discrete variables, which if selected would narrow the readings and subsequent analysis to relatively tight boundaries. This would provide a benefit in terms of project management. The literature search could be restricted to only those studies providing empirical data on those selected variables. Finally, the model would promote the analysis of interrelationships across several managerial dimensions. This feature would facilitate definitive analyses of the impact of one managerial process or function on other organizational characteristics.

After considering the relative advantages and disadvantages of each model, a decision was rendered to adopt a synthesis of the two. The synthesis maintained many of the style and format features of the sociological framework while integrating many of the topical elements of the systems framework. The sociological approach was used as a basic format because it facilitated a cleaner approach to identifying a knowledge base. The capacity of assessing relationships across organizational dimensions provided a sound, objective technique for analyzing the contributions of specific studies and then constructing the knowledge base. In addition, this framework enhanced the integration of police studies with those in non-police disciplines. The systems framework did not have this capability due to its inclusion of police organizational specific dimensions.

It was determined that to be most useful, the sociological framework would require modification to include variables of key interest to police practitioners and researchers. Certain major issues which have been subject to much research in the law enforcement field did not appear in Heydebrand's model. These variables, described on the following pages, were thus integrated into the synthesized framework and appear in Table 2. These modifications are described by order of conceptual clusters.

Table 2

MODIFICATIONS TO HEYDEBRAND'S SOCIOLOGICAL FRAMEWORK

| Conceptual Cluster | Added Variables |
| --- | --- |
| Complexity of Goal and Task Structure | 1. The original breakout of descriptors on organization size (variable 10) was dropped and unique variables adopted for organizational size. Organizational size: members; organizational size: resources; and organizational size: clientele. |
| | 2. The variables on organization change (variable 11) and organizational effectiveness (variable 12) were dropped from this cluster to be included in a new cluster on "Organizational Achievement." |
| Internal Structural Differentiation | Four specific variables describing particular forms of organizational stratification were added to the framework. These variables were added to accommodate analyses of several issues of contemporary concern in police administration. The new variables are: |
| | 1. Internal Stratification: Sex. |
| | 2. Internal Stratification: Race. |
| | 3. Internal Stratification: Seniority. |
| | 4. Internal Stratification: Education. |
| Organizational Coordination and Control | 1. The original variable on incentives was subdivided into three variables: material, social, and normative. These sub-variables were treated as unique variables in order to facilitate a more straightforward analysis of all variables and relationships. |
| | 2. Four new variables were added to the framework to facilitate analyses of important policy-relevant issues in police management. These variables are: |

Table 2 (continued)

| Conceptual Cluster | Added Variables |
| --- | --- |
| | • Discretion. |
| | • Employee Coordination/Control. |
| | • Recruitment, Advancement Systems. |
| | • Training Systems. |
| Informal Organizational Structures | Three new variables were added to Heydebrand's framework to constitute this new conceptual cluster. The variables are: |
| | 1. Employee Adaptation. |
| | 2. Group Cohesion. |
| | 3. Satisfaction/Alienation. |
| Organizational Achievements | Three new variables were added to the framework to structure this new conceptual cluster. Two of these variables, organizational change and organizational effectiveness, appeared in Heydebrand's model under the cluster entitled "Complexity of Goal and Task Structure." The four variables in this cluster are: |
| | 1. Organizational Effectiveness. |
| | 2. Organizational Change. |
| | 3. Public Support/Legitimacy. |
| | 4. Individual Performance. |

In a similar vein, another general category entitled "Informal Organizational Structures" was added to the framework. Its specific variables include employee adaptation, group cohesion, and satisfaction/alienation. These items have been (and continue to be) major foci of attention for many police authors; thus, the study would be remiss in excluding them from the model. Heydebrand does not treat the informal organization in his paradigm because its elements are difficult variables with which to deal at the organizational level of analysis. Most empirical research (in both police and non-police contexts) that deals with variables like cohesion, cynicism, or satisfaction treats them as individual attributes. In fact, most studies examining these variables use an individual case study research design. Thus, there is an inherent question regarding the generalizability of findings from such studies. All studies selected and analyzing these variables were thus carefully examined to determine to what extent their findings were generalizable.

Two general reconceptualizations of the sociological framework, each of which results in the addition of a new category of variables to the models, were also added. The first of these is labelled "organizational achievement." In his original framework, Heydebrand included "organizational effectiveness" and "organizational change" under the general category "Complexity of Goal and Task Structure of the Organization." His rationale for this is that effectiveness and change are so closely bound up with goals and tasks that they merit inclusion in that area. The closeness of the connection is not disputed, but the fact is that complexity is an internal structural matter, while notions like effectiveness and change (innovativeness) are analytically distinguishable from internal structure. These concepts are better thought of as outcome of structure, rather than aspects of structure. Furthermore, in the specific case of police studies, additional levels of individual performance by organization members can be added to the framework. All of these specific measures or variables were gathered under the general classification of "organizational achievement" and treated as separate elements in the revised framework.

The revised framework is depicted in Table 3. This model retains the coherence and specificity of the original "sociological framework," yet is directly applicable to the police field with the addition of several new variables. Specific definitions for each of the variables immediately follow Table 3.

The framework was employed by the research staff as an overlay for determining the relative contribution of research studies. Researchers were directed to assess the relevant variables from the study, determine the treatment of these variables (either dependent or independent), and ascertain directions of relationships (either positive, negative, or neutral). In this way, the foundation for determining the knowledge base strengths and weaknesses in police management research was constructed.

Table 3

PROJECT CONCEPTUAL FRAMEWORK

| | |
|---|---|
| I. Organizational Environment and Autonomy | 1. Environment: Aggregate Characteristics<br>2. Environment: Relational, Structural Characteristics<br>3. Organizational Age<br>4. Legal, Political Autonomy<br>5. Functional, Economic Autonomy |
| II. Complexity of Goal and Task Structure | 6. Diversity of Objectives<br>7. Number of Objectives<br>8. Geographical Dispersion<br>9. Variability of Tasks<br>10. Organizational Size: Members<br>11. Organizational Size: Resources<br>12. Organizational Size: Clientele |
| III. Internal Structural Differentiation | 13. Functional Specialization<br>14. Departmental Specialization<br>15. Technological Complexity<br>16. Skill Structure, Professionalism<br>17. Internal Stratification: Sex<br>18. Internal Stratification: Race<br>19. Internal Stratification: Seniority<br>20. Internal Stratification: Education |
| IV. Organizational Coordination and Control | 21. Committees<br>22. Incentives: Material<br>23. Incentives: Social<br>24. Incentives: Normative<br>25. Formalization/Written Rules<br>26. Discretion<br>27. Hierarchical Levels<br>28. Span of Control; Manager Ratio<br>29. Administrative Staff and Communication<br>30. Decision-Making Systems<br>31. Employee Coordination/Control<br>32. Recruitment, Advancement Systems<br>33. Training Systems |
| V. Informal Organizational Structures | 34. Employee Adaptation<br>35. Group Cohesion<br>36. Satisfaction Alienation |
| VI. Organizational Achievement | 37. Organizational Effectiveness<br>38. Organizational Change<br>39. Public Support/Legitimacy<br>40. Individual Performance |

Definitions for Variables in Conceptual Framework

Conceptual Cluster I: Organizational Environment and Autonomy. This grouping of variables categorizes and defines the interrelationships between the organization and its environment. Interrelationships are defined herein in the general context as the influence which the operating environment (normally thought of as the community in which the police agency is constituted) has on the organization and vice versa. Specific influences describing the organization's relative independence and autonomy from its environment, or dependence and lack of autonomy, which impact the management system and processes within the police organization, are also included.

1. Environment: Aggregate Characteristics. This variable includes those attributes of the population, land area, culture, economy, and ecology in the environment served by the police agency. These may or may not have any direct bearing on the organization. In fact, their influences are more likely to be indirect.

2. Environment: Relational, Structural Characteristics. This variable is defined as those conditions in the environment which in some way impinge upon the mission and/or activities of the organization. In this way, this variable differs from number 1. Included with this variable are relations with other organizations in the environment, both those which are similar in function and those which have different missions, as well as individual relations between members of the organization and actors within the environment. Also included are inputs to the organization arising from the environment. This would include inputs having a direct bearing on the management of an organization. Perhaps the most readily discernible example of inputs generated in the police context are crime rates.

3. Organizational Age. In the general social science literature, age is defined in two ways. First, it is used to define stages in the life cycle of organizations. Secondly, it is used in analysis of the impact of larger historical events on the organization (e.g., the impact of urban riots in the 1960's). These same definitions will be used in this study.

4. Legal, Political Autonomy. This variable includes all pertinent issues of ownership and control of the organization within its environment. Ownership is applicable only to the private sector, while the concept of control is pertinent to police and non-police

organizations. Ownership and control will be analyzed from the standpoint of impacts on policy, procedure, and organizational structure.

5. Functional/Economic Autonomy. This variable is closely related to variable 4, Legal, Political Autonomy, but differs in the fact that it encompasses issues of control over budgets, resources, and decisions to engage in specific types of actions. Included with this variable are budgeting issues and other issues affecting organizational programs and use of personnel (e.g., regulations, court orders).

Conceptual Cluster II: Complexity of Goal and Task Structure. This conceptual cluster includes seven variables which begin to define how an organization interacts with its environment to accomplish its set purpose or mission.

6. Diversity of Objectives. This variable focuses on the variability of an organization's objectives. It may include analyses of the variation in types of services or products delivered by the organization.

7. Number of Objectives. This is a companion variable to variable number 6, Diversity of Objectives, and differs only in the sense of focusing on numbers of objectives and hence numbers of services or products delivered.

8. Geographical Dispersion. This variable is defined as the number of work locations or stations existing within the organization structure. It does not include the topic of decentralization of authority which is defined at a later point in time (variable 30).

9. Variability of Tasks. This variable refers to the distinction between routine and non-routine tasks performed within an organization. Studies included under this variable focus on the impact of conducting non-routine tasks within an organization. Non-routine in this sense refers to tasks which are carried out infrequently or are produced from changes in the work structure.

10. Organizational Size: Members. This variable refers to the number of employees working within an organization.

11. Organizational Size: Resources. This variable refers to the amount of resources available to an

organization. Resources in this context do not include personnel.

12. Organizational Size: Clientele. This last variable in this series dealing with organizational size issues refers to the size of the clientele served by the organization. More specifically, it refers to the size of the general population served by the organization.

Conceptual Cluster III: Internal Structural Differentiation. This cluster includes variables which begin to move into the more specific realm of managerial tasks to organize the work force and employ technology in structuring the work effort. With this group of variables the framework begins to move away from the conceptual areas of how organizations are structured to more concrete aspects of internal organizational management tasks and activities.

13. Functional Specialization. This variable is defined as the division of labor among employees of an organization. It refers to the extent to which specific work tasks are allocated to different occupational titles or positions.

14. Departmental Specialization. This variable is defined as the division of labor among subunits of an organization. It normally refers to the numbers and types of subunits existing within the formal organization.

15. Technological Complexity. This variable refers to the nature and degree of technological complexity of the organization. It generally analyzes the extent of use of machines and the degree of mechanization or automation of the work processes.

16. Skill Structure, Professionalism. This variable refers to the degree of technical specialization and/or professionalism in organizations. In the general management literature, it is often operationally defined in terms such as blue collar and white collar workers or technical and managerial workers.

17. Internal Stratification: Sex. This is the first of the internal stratification measures. It refers to the differentiation of male vs. female workers and includes not only absolute numbers and percentages of workers, but the impact of sexual stratification in the work place. A high degree of sexual stratification would connote differentiation of work efforts and tasks by sex.

18. Internal Stratification: Race. This variable analyzes the impact racial stratification has on the organization and its employees. Thus, it will provide knowledge on work stratification by racial composition of the work force.

19. Internal Stratification: Seniority. This variable will be treated in the same manner as variables 17 and 18, but will focus on the effects of seniority. This variable will be defined as the seniority with the organization, not seniority by rank or position.

20. Internal Stratification: Education. As with variables 17-19, this variable will address stratification by educational levels of employees and will assess the effects of such stratification on the organization.

Conceptual Cluster IV: Organizational Coordination and Control. Included in this cluster are two essential aspects of managerial coordination and control methods. The first are the typical bureaucratic or structural elements employed to gain control over the work force, such as written rules and policies and hierarchical organizational levels. The second are the non-bureaucratic modes of coordination (e.g., committees, incentives) used to coordinate the work force. Two additional elements are included in this cluster which do not really fit either of these two managerial dimensions, but are utilized as means of coordinating the work force and work effort. The first of these is recruitment, advancement systems and the second is training systems. These were added primarily because of their relevance to contemporary police administration.

21. Committees. This variable includes the formation, membership, and frequency of use of committees in the management process. It includes participatory management schemes and strategies.

22. Incentives: Material. This is the first of the three variables addressing management incentives for employees. This variable refers to money and tangible benefits offered as incentives.

23. Incentives: Social. This variable encompasses management efforts to motivate employees through experience and interaction with other organization members.

24. Incentives: Normative. This variable refers to management incentives to achieve control and coordination through opportunities for personal

contributions based on value systems or ideological goals.

25. Formalization/Written Rules. This variable will be used to determine the degree to which procedural rules and directives are written or are simply internalized by organization members. The effects of these variations will be assessed using this variable.

26. Discretion. This variable refers to the amount of individual autonomy inherent in the organization and provided to employees and the methods used by management to control or coordinate actions resulting from such autonomy.

27. Hierarchical Levels. This variable is self-explanatory. It encompasses research on the nature of organization structure--tall vs. flat--and the effects of such structures.

28. Span of Control; Manager Ratio. This variable is very straightforward. It is defined as the ratio between supervisors and subordinates. In most cases, it will be defined as either a large or a small span of control and will be used to assess the degree of direct management or supervisory control of employees.

29. Administrative Staff and Communication. This variable refers to the numbers of administrative staff positions and levels of communication among organizational members. Administrative staff can refer to both numbers and types of managers/administrators or to numbers and types of support staff in the organization.

30. Decision-Making Systems. Social scientists normally refer to this topic when discussing centralization vs. decentralization of decision-making authority. This distinction will apply for this study. It will thus be used to assess the concentration of decision-making authority by management. It should be pointed out that this does not necessarily refer to the physical placement of decision-making in a work unit or facility, but to the degree to which decision-making authority is pushed down the hierarchical structure.

31. Employee Coordination/Control. This variable encompasses a variety of issues all addressing managerial means of controlling and coordinating the

work effort and employees. Included for this variable are issues such as supervision, accountability, task definitions and descriptions, and disciplinary procedures. Generally, a positive coding for this variable connotes a management system with "tight" control/coordination systems, while a negative coding would refer to a loose or laissez faire management control/coordination system.

32. Recruitment/Advancement Systems. This variable is defined as those formal management strategies used either to select or promote employees. It will be assessed as to its presence or absence in organizations and its ultimate impact on the organization. A positive coding for this variable would imply formalized systems while a negative coding would imply informal recruitment/ advancement systems.

33. Training Systems. This variable embodies methods of training employees (both recruit and in-service), as well as the effectiveness of training systems. As with variable 31, the coding for this variable will be based on the degree of formalization and sophistication of training systems.

Conceptual Cluster V: Informal Organizational Structures. This conceptual cluster was added to Heydebrand's original framework to facilitate an analysis of the effects of management activities and processes on the group and the individual. A significant amount of research in the police and non-police disciplines have addressed such effects and examined the role of the individual and the work group in the organization.

34. Employee Adaptation. This variable is reserved for a variety of issues dealing with the role of the individual in the work place. Among these issues were employee commitment, cyncism on the part of employees, individual personality and how this is manifested in the organization, and individual role perception, including employee perceptions of their job and its requirements. This variable, therefore, is quite broad and includes individual personality factors as well as topics describing the employee's role and integration into the work force.

35. Group Cohesion. Whereas variable 34, Employee Adaptation, focuses on the role of the individual in the organization, this variable addresses the role of the group. It includes measures of social attachment, the

structure and role of the work group, including employee organizations, and the interrelations between management and the work group.

36. Satisfaction/Alienation. This variable is defined as levels of employee satisfaction or its opposite, alienation to management and the organization. Most frequently, it is examined as a dependent variable--that is, attempts are made to evaluate the relationship between particular management actions and levels of satisfaction or alienation.

Conceptual Cluster VI: Organizational Achievement. This conceptual cluster was also added to the framework for purposes of isolating the output side of the management process. This cluster, therefore, includes measures of the results of organizational or individual processes in moving an input through to given outputs. This cluster is somewhat different than all of the foregoing clusters in that it deals to a great extent with techniques or methods of measuring outputs. This was not originally expected in the research. However, it was discerned that much research has focused on measures of effectiveness, measures of employee performance, and measures of citizen evaluation of services. This is likely due to the rather imprecise nature of existing output measures and a lack of understanding of these measures in many forms of organization. This is especially true in law enforcement.

This variable also includes many analyses of specific results produced by management activities. In most such cases, the variables in this cluster are treated then as dependent variables where a researcher is assessing the relationship between some organizational or management action and some desired result.

37. Organizational Effectiveness. This variable refers to measures of organizational effectiveness and efficiency. It takes on different dimensions, depending on the type of organization studied and the specific research study.

38. Organizational Change. This variable addresses a unique form of output--that result produced by deliberate attempts to change some function, process, or activity in the organization itself. In much of the literature, this output is treated as an end in itself.

39. Public Support/Legitimacy. This variable is defined as client perceptions or reactions to delivered services or products produced by the organization. Client perceptions are quite often thought of as unique outcomes of the organization.

40. Individual Performance. This variable includes measures of how the individual performs and what results are produced by the individual in the organization. This variable is closely linked to variable 37, Organizational Effectiveness, but is different in that it focuses on individual effectiveness and efficiency.

## Study Collection and Review Procedures

This section describes the methodologies employed to gather books, articles, monographs, and other research materials, code these documents, and extract meaningful information for the knowledge synthesis. Data coding, validation, and review procedures are also discussed in this section.

The initial task in gathering books, articles, and monographs for review under this study was to determine a document selection strategy which would promote the review and analysis of important research studies in law enforcement and pertinent organizational studies in the non-police disciplines. The literature on management is voluminous. Further, it is scattered across many disciplines. Therefore, the document gathering process was designed to meet three major requirements: (1) be capable of cutting across all of the essential disciplines which are likely to include students of organization; (2) be systematic in that it yields literature which is empirical in nature and is thus appropriate for analysis; and (3) be efficient in that it minimizes the likelihood of staff conducting random, and possibly unproductive, searches for and through literature.

### Step I--The Journal Literature

The first procedural step was to focus on the literature contained in the scholarly journals. Theoretically, scholarly journals are designed to receive and publish articles that are of current importance in their respective fields. The articles they do publish have been prejudged by peer references as being methodologically sound and substantively worthwhile. Finally, journal contents tend to be efficient in the sense noted above, in that they avoid the prescriptive and the descriptive in favor of the theoretical and, especially, the empirical. All in all, they serve as a good starting point for collecting material.

The major national journals of the disciplines most likely to have examined organizational topics or questions, whether police-related or not, were examined first. Those disciplines, and the corresponding journals, are presented below:

| Field | Journal |
|---|---|
| ● Police Science/Criminal Justice[5] | Journal of Criminal Justice |
| | Journal of Police Science and Administration[6] |
| ● Law | Law and Society Review |
| ● Management/Organization | Administrative Science Quarterly |
| | Academy of Management Journal |
| | Public Administration Review |
| ● Economics | American Economic Review |
| ● Political Science | American Political Science Review |
| ● Sociology | American Sociological Review |
| | American Journal of Sociology |
| ● Urban Studies | Urban Affairs Quarterly |

Sample indices from each of these journals were reviewed to determine their likelihood of contribution to the project. This review not only assessed the quantity of empirical articles studied, but also analyzed the topics addressed. An effort was made to identify journals which would yield the greatest number of pertinent studies which focused on variables of interest. This review of indices resulted in the selection of all of the above journals with the exception of American Economic Review. This journal did not contain a sufficient number of pertinent studies for our analysis.

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[5] The selection of these journals in the police science field receives support from an independent source. In early 1977, L. Craig Parker and Eileen Goldfeder conducted a survey of heads of criminal justice schools or departments in the United States, asking them to indicate "in terms of importance, the ten most critical journals to the field of criminal justice." The first three journals in the field were criminology journals; the two listed in this table ranked four and five, respectively. For a complete discussion, see L. Craig Parker and Eileen Goldfeder, "Productivity Ratings of Graduate Programs in Criminal Justice Based on Publications in Ten Critical Journals," (Journal of Criminal Justice, Vol. 7, No. 2, Summer 1979) pp. 125-133.

[6] Prior to 1973, the major forum for police scientists was the Journal of Criminal Law, Criminology, and Police Science. It was only in that year that the Journal of Police Science and Administration became an independent entity. For purposes of this study, articles in the "Police Science" section of the former were examined in addition to indices from the latter.

Subsequently, the Academy of Management Journal was deleted from the list of potential journals because of its close resemblance to the Administrative Science Quarterly in types of articles that were presented. It was determined that resources would be allocated more effectively by reviewing all other pertinent journals plus the douments identified for Step II, described below, rather than to accummulate redundant information from like journals.

Indices from each of these journals for the years 1955-1980 (through June) were then reviewed to select those articles which were to be included in the analysis. Selected articles were then divided into police and non-police disciplines. In completing this division of the journals, it was found that the predominant number of empirical studies on non-police organizations were included in the Administrative Science Quarterly. The breadth of studies in this journal was large, thus supplying a vast quantity of works on non-police organizations.

Because of this large resource pool of studies and the necessity to use existing manpower resources as efficiently as possible, it was decided to use the Administrative Science Quarterly as the sole journal source for non-police studies. The findings from this journal were considered in conjunction with noted works of key management theorists and social scientists (obtained from the Step II literature collection effort).

This was a conscious decision which resulted in a prioritization of research efforts on the police literature rather than the non-police literature. Consequently, the data base for this study was weighted in favor of police studies. The non-police data base was used as a secondary source of knowledge to augment and contrast findings from police studies.

All selected documents were read with findings integrated into the project's conceptual framework. A coding form which included the major topics of interest for this framework and for a summary of the study's methodology was prepared and used for all studies that were read. The coding form was pretested and revised before being put into full-scale use. This coding form included the following information: study citation, study site(s) and unit of analysis, types of data used (e.g., observation, personal interviews, survey, records), style of analysis (e.g., qualitative, quantitative, or a mixture of the two), methods of statistical analysis, variables analyzed and operational definitions of these variables, the specific findings of the study, and a critical review of the study's methodology. Researchers were also directed to identify relationships among variables on this form, if there were any, and to specify the direction of the relationship (positive, negative, or neutral).

## Step II--Literature Cited in Target Journals

Because many books, monographs, governmental reports, unpublished research reports, and other documents contain information on empirical studies of organization, it was necessary to derive a mechanism for selecting these documents. This technique had to meet the criteria mentioned above for journals.

The journal articles that were selected oftentimes cited previous empirical works on the same subject and/or referred to other studies that were indirectly related in subject matter. This review of the literature is included usually to build a theory concerning a particular topic of interest. In empirical studies, researchers often rely on such reviews to build a case for their own work.

Because the resource base originating from the Step I readings provided a sound and readily available source of other potential readings, it was used as a means of selecting items for the Step II review. Researchers were directed to document those cited studies which on the surface appeared to be relevant in subject and empirical in form. From this recommended list, a bibliography of Step II readings was prepared. Researchers were then instructed to collect these readings, review them to determine if they still met project selection criteria, and then to review such documents in the same manner that articles were reviewed.

As a second effort to collect and synthesize relevant research, other than that published in journals reviewed during Step I, the project team requested and obtained special listings of articles contained in the National Criminal Justice Reference Service. These special listings were designed to yield data on the variables of interest to this study. The listings were reviewed, redundant items eliminated, and a preliminary selection list of pertinent articles and books was prepared. The documents on this list were then reviewed to determine their applicability. In many cases, this review resulted in the elimination of the document from the list of possible sources. It was found that quite often annotations in the listing did not accurately predict whether the study was empirical in design.

As a final data-gathering technique, project staff requested and obtained a special listing of research grants funded by the National Institute of Law Enforcement and Criminal Justice from 1970-1979. This listing was produced by the Department of Justice and completed by searching for certain pre-selected key words in the annotation. This list was then reviewed with certain relevant studies designated for review. These studies, usually grant reports, were then extracted from the holdings of the National Criminal Justice Reference Service and reviewed using the coding form discussed above. Although the majority of pertinent studies were located and reviewed, there were a considerable number that could not be analyzed because either no report containing the study's methodology was prepared, or in some cases, could not be located.

In this way, three separate sources were utilized to collect studies for Step II. These sources, as well as the Journal Sources (selected and reviewed for Step I), are depicted graphically in Figure 2.

Figure 2

STUDY COLLECTION METHODOLOGY
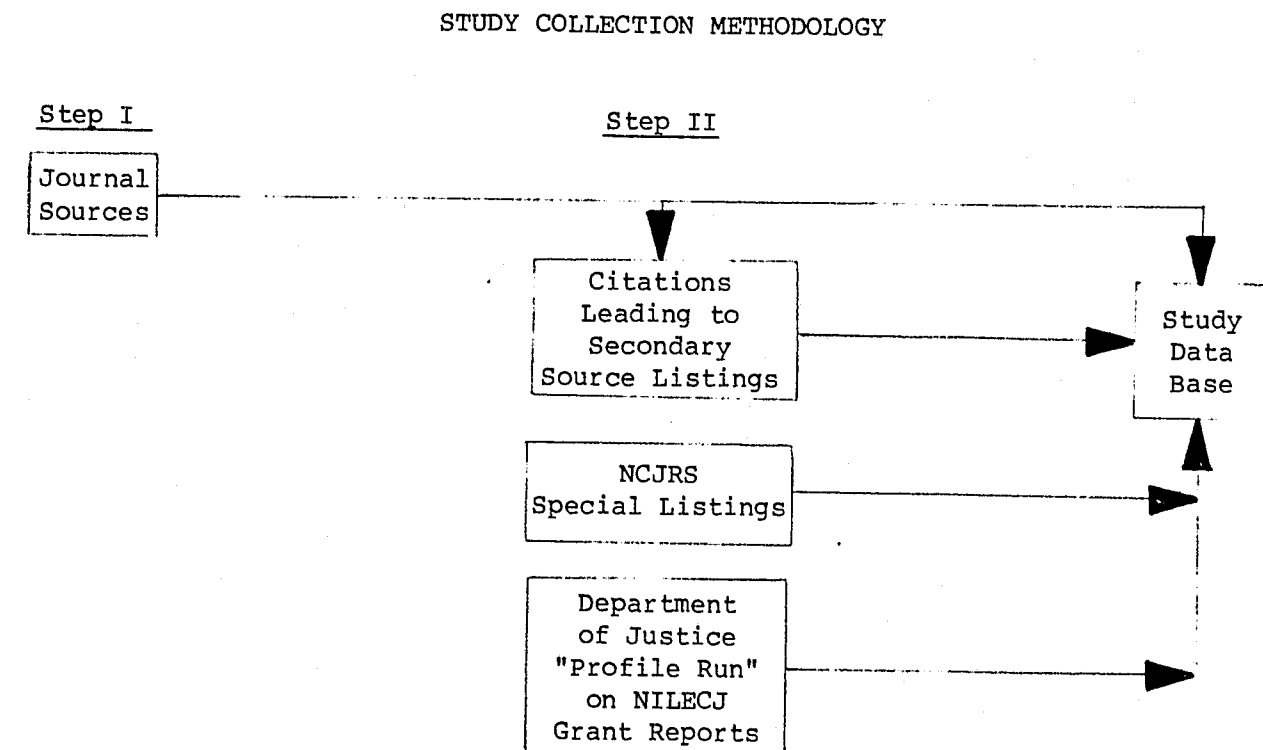


## Study Data Base

This process of collecting and reviewing first journal articles and then other secondary sources, resulted in a large data base of 485 research studies. This data base consisted of 292 police studies and 193 non-police studies. The 292 police studies included 192 studies identified and reviewed from the three target law enforcement journals: The Journal of Police Science and Administration; the Journal of Criminal Justice; and the Journal of Criminal Law, Criminology, and Police Science. The remaining 100 studies included 60 books, monographs, and research reports and 40 journal articles from other periodicals.

The non-police data base consisted of 158 articles from the Administrative Science Quarterly and 35 from other sources (books, monographs, and journals).

## Data Validation and Review Procedures

A key step in any research project is the data validation and review procedures. This research requirement was especially crucial to the present study. The project admittedly had created a conceptual framework which, from all initial considerations, appeared usable. Similarly, the data collection and review procedures, by all indications, appeared sound. This is not to say, however, that these judgments guaranteed the validity and reliability of the study.

Several procedural steps were incorporated into the study to address validity and reliability concerns. First, the coding instrument was pretested. A significant sample of readings was read by three staff researchers with the coding instrument completed. After receiving necessary training, each reader reviewed each study, therefore resulting in three separate reviews of each study. These same studies were then discussed in a panel format with all three staff researchers and the Project Principal Investigator. The intent of this meeting was twofold: (1) to review the viability of the instrument and (2) to assess reader familiarity with and use of the instrument, thus establishing intercoder reliability.

This pretest resulted in two definitive findings. First, it was determined that the instrument itself was satisfactory for use. Secondly, it was decided that the coding efforts of staff researchers required a periodic review in order to assure consistency in the coding and tabulation process. This was not due to lack of training or experience on the part of staff, but to the subjective nature of the research effort itself.

The conceptual framework is comprehensive in that it covers a wide spectrum of organizational and management issues. However, it does not include specific variables precisely fitting each study selected and reviewed. This was due in part to the project's effort to review studies from many disciplines. Consequently, in some instances, there was a need to interpret the fit between the research study itself and the variables.

The project team addressed this potential threat to validity, stemming from staff interpretations, through continual training and a review of all coding sheets by the Principal Investigator. Occasionally, studies required recoding once they were reviewed by the Principal Investigator. The frequency of this recoding decreased, however, as the readers became more experienced with the framework and the subject matter.

In addition, a final validity check was incorporated into the data analysis process, as discussed in the following section. Research staff prepared individual reading summaries by conceptual cluster. These summaries, in the form of a separate document listing the research project's variables, defining the variables, specifying the findings with a commentary if applicable, and presenting any critique on methodology, were reviewed jointly

by the researcher and the Principal Investigator. Because this review focused on the conceptual cluster as a whole and thus analyzed individual readings in conjunction with other readings, there was a need to verify the correct placement of each study within the conceptual cluster. This necessitated a review of the findings and on occasion resulted in a recoding of the specific study.

In summary, this study featured several efforts to ensure validity and reliability in coding and analysis. These efforts resulted in a consistent treatment of selected research studies.

## Data Analysis Procedures

In any research endeavor, a key task is selecting appropriate forms of analysis. With this study, as is the case with most studies where a vast quantity of data is collected, a critical task was determining means of synthesizing the various data, determining what the data indicated for the field, and then deriving conclusions about the state of the art. A portion of this effort is descriptive in that it requires a reporting of what the data are in a logical format. Another segment of the work requires inferential level analyses. It is this portion of the analyses which is often most complex. These two levels of analyses were completed for this project.

## Descriptive Analysis

The descriptive analysis was completed to describe the quantity and style of reviewed research as ordered by the conceptual clusters appearing in the framework. It was determined that the conceptual clusters yielded the lowest possible level of analysis, since in some instances the literature did not provide information by specific variables. Further, such a form of analysis promoted full consideration of the dynamics of relationships which cut across the various organizational dimensions. It enabled the research team to develop findings concerning, for example, the impact of environment on organizational goal and task structure, internal structural differentiation, modes of organizational coordination and control, and levels of organizational achievement. This analysis, as presented in forthcoming chapters, provided knowledge as to what conceptual areas have been researched at length and what areas have largely been disregarded, as well as the information on cross-dimensional relationships.

The police literature was reviewed in concert with the non-police literature. This process served two purposes. First, it enabled the project team to derive comparative findings about both the style of the research (e.g., type of research design, forms of analysis). Secondly, it promoted comparative analysis of substantive findings. Reviewing the two groups of

studies simultaneously facilitated possible generalizations to the police discipline from the non-police studies.

In reviewing the style and format of the research, it was necessary to develop specific operational definitions for types of research designs and forms of analyses. The key emphasis in this process was to derive definitions which were methodologically sound and permitted generalizations about the data. Three general research designs were defined for the study: these were survey research, quasi-experimental, and experimental.

Survey research was viewed as involving the quantification of data based on observations of a set of unique data. Three major purposes of survey research have been described (Bobbi, 1973). First, it can provide a description of some population. Second, in addition to providing a description, many surveys have the additional objective of making explanatory assertions about the population. Finally, survey methods can be used as an exploratory technique during the researcher's initial inquiry into a particular topic.

There are two basic survey research designs: cross-sectional and longitudinal. In a cross-sectional survey, data are collected at one point in time for the purpose of describing a particular population. This type of design can also be used to determine the relationship between variables at the time of the study. Longitudinal surveys are conducted over a period of time and can be either descriptive or explanatory in nature.

For purposes of this study, the category of survey research was further divided into those studies that were exploratory in design (i.e., researched a particular question by analysis of data from several sites) and those that used a case study format. This distinction was drawn to examine the number and type of research projects that used a case study approach-- normally referred to as studying a question or a series of questions in one site. Many of the works on police organizations fall into this design category. This distinction was also utilized to yield information on the generalizability of survey research data.

The second major type of methodology employed was the quasi-experimental design. Cook and Campbell define this as experiments that have treatment, outcome measures, and experimental units, but do not use random assignment to create the comparisons from which treatment-caused change is inferred (Cook and Campbell, 1979). A quasi-experimental design provides a basis of comparative inference when the conditions for an actual experiment are not present (Fairweather and Tounatzky, 1977). Nonequivalent control group and time series designs are two common quasi-experimental research designs.

Experimental designs involve the scheduling of observations, the choice of treatment and comparisons, the selection of measured control

variables, and random assignment of units to treatment groups (Campbell and Stanley, 1963). Random assignment enables the researcher to draw inferences about the casual relationships between variables. Common experimental designs include: pre-test/post-test control group design and the post-test only control group design.

Four levels of analysis were selected for purposes of reviewing aggregated studies by conceptual cluster and reporting on the state of the art of organizational research: qualitative; univariate; bivariate; and multivariate. These four forms of analysis are described in the following paragraphs.

Qualitative research studies are those studies which did not include any form of quantitative analysis, but simply relied on observational data to deduce findings concerning some element of organization and/or management. Many case studies in police management, often noted as classics in the field, utilized this form of analysis.

Many studies were described as using univariate forms of analysis. These were studies which examined only one variable at a time and largely produced only summary statistics. The normal measures which accompany such studies are measures of central tendency (e.g., mean, median, mode) and measures of dispersion (e.g., variance, standard deviation, standard error).

The third form of analysis is bivariate. This describes studies which investigate the relationship between two variables and often include a measure of association or a test of statistical significance. Commonly used statistics included under this category, including chi-square and Pearson's, produce moment correlation coefficient.

The final level of analysis is multivariate. This includes studies which use inferential statistical techniques to generalize from one set of data to another. Some of the most widely used multivariate statistical techniques are regression, analysis of variance, discriminant analysis, and partial correlation. Factor analysis was also added to this grouping since it is used to determine commonality among unique measures of a certain phenomenon, usually attitudinal data.

These definitions were used in aggregating studies by conceptual clusters. Researchers were directed to determine the type of design and the level of analysis in descriptively synthesizing data from each study.

This synthesis involved several steps as described below. These steps were undertaken once the studies were grouped by conceptual cluster. A summary review sheet, entitled the "Individual Reading Summary by Conceptual

Cluster," was used to transcribe this information for both the police and the non-police disciplines.[7] The specific steps were as follows:

1. Define the specific variables analyzed. In many cases this necessitated the breakout of sub-variables because the overall study variable was too broad in scope to accurately portray all of the studies reviewed. This occurred, for example, with the variable on environment: aggregate. As shown in Chapter II, there were many sub-variables which fell under this broad variable.

2. Describe the relationships found with an indication of direction (positive, negative, or neutral) and provide a brief commentary, if deemed appropriate, on the relative significance of the finding, given the state of the art.

3. Document any methodological difficulties which were clear from the research document. These comments were to be primarily oriented to problems which may have invalidated the findings.

4. Define the form of research design and level of analysis.

This information was aggregated by conceptual cluster into "Comparative Synthesis Reports" which largely described the state of the art of both police and non-police disciplines as based on the studies reviewed.[8] These reports were produced for each conceptual cluster.

Inferential Analysis

The most complex task in the analysis of selected studies was inferring as to the knowledge base on a given variable or set of variables. The process of inferring has been defined as "deriving by reasoning or implication; concluding from facts or premises; deriving as a consequence or conclusion" (Webster's New Collegiate Dictionary, 1979). This definition accurately defines the process that was utilized for analyzing results from this study. The descriptive data accumulated by conceptual cluster was reviewed, synthesized with inductive reasoning applied as to the state of the art of the particular subject.

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[7]This document was designed as an internal research collection and analysis report and as such is not included in this report.

[8]This report is also an internal working document and does not appear in this report.

Three forms of analysis were used in completing this review. These are defined below:

1. Assessment of Knowledge Base Strengths. Determinations were made as to areas where research has demonstrated a relationship between a set of variables. In most cases, this knowledge base was not derived until more than one study on the same subject was completed having similar results. There were many such instances in the data base. Often, however, a study was construed as yielding knowledge if the study had a sound methodology, relied upon a solid theoretical foundation, and was generalizable.

2. Assessment of Knowledge Base Weaknesses. Determinations were made as to those areas of management where very little knowledge is available. These were identified primarily through analysis of gaps in the research data base. These gaps can be due to either the absence of research, the relatively unsophisticated methods of research which may invalidate findings and, therefore, not contribute to a knowledge base, or to the fact that research was not generalizable.

3. Assessment of Contribution of Knowledge Base to the State of the Art. Researchers were asked to define the relative contribution of knowledge derived from the conceptual cluster. This third and final form of inferential analysis was used to assess the value of the knowledge to contemporary law enforcement administration. It was completed by judging how the research contributes to what is known about the organization of police agencies. Many of the studies reviewed during the project discovered new knowledge. Not all of these studies, however, can be said to have added significant policy-relevant knowledge to the field.

These three forms of analysis yielded the overall project findings and provided a blueprint for future research. In the aggregate, these analytical methods accommodated the development of conclusions regarding each conceptual cluster. These methods also enabled the research staff to delineate research problems which either were encountered in studies reviewed for this project or are likely to arise in further studies. These problems were largely reserved for police studies and judgments about the knowledge base in the police field since that is the focal point of the project.

Several issues were identified in completing these analyses. Among the factors considered were problems or difficulties in operationally defining variables, difficulties in collecing large enough samples, or in simply collecting valid empirical data at all, difficulties in generalizing from one set of data to a population, problems produced by improper or inappropriate statistical analysis, and finally, difficulties in transferring the knowledge from the larger area on management and organizational theory to police. In short, these analyses yielded a synthesis of the various obstacles to knowledge generation based on the experience of previous researchers.

## II. ENVIRONMENT AND ORGANIZATIONAL AUTONOMY

### Introduction

All organizations are influenced by the environments in which they operate. The nature of this influence varies depending on the nature of the organization, its materials and resources, and the culture of the society in which the organization operates. Influence here is used as a general term and connotes indirect, as well as direct effects on organizations by their environment. Indirect influences stem from the norms, institutions and value systems of a society, and the specific economic and political characteristics of that society. Organizations react to these environmental factors. Management, therefore, considers these influences in long-range, as well as short-range decision-making. These considerations are sometimes manifested in subtle ways, yet they are evident in all organizations.

In policing, several social, economic, and political factors within the environment influence management and administrative systems and processes internal to the organization. Perhaps the most direct influence is the crime rate. Fluctuations in crime rates within individual jurisdictions affect the operational response capability of the police agency. Such changes also affect the managerial and support systems of the organization. This is evident from the fact that police organizations in certain jurisdictions opt to institutionalize specialized units, such as crime prevention or community relations units, to respond to particular crime problems. Other influences on the organization range from the more indirect cultural influences to variations in socio-economic characteristics of a community, which directly affect street level police-citizen interactions, as well as generating an influence on the resources available and the political environment within which police managers must operate.

The relationship between organizations and their environments is not uni-directional. Organizations also influence their environments through managerial strategies and tactical activities. These influences are largely determined by the organization's, that is, management's perception of their environment. Relying on these perceptions, managers implement certain administrative and operational decisions which shape the organization's working environment.

Using the example of crime, police administrators select certain environments in which to operate through conscious decisions which will dictate the level of enforcement of particular crimes. Police organizations cannot normally respond to all crimes with the same level of resources. Consequently, managers adopt priorities, albeit often influenced through political, administrative, or other criteria, which in essence shape the environments in which the organization operates. This shaping process is not often orderly, but is dynamic.

Thus, it can be said that organizations engage in an exchange with their environments. There is a give and take relationship where the environment places certain constraints on the organization. These may be due to legal, political, cultural, or other conditions in the environment. The organization then helps shape its environment with its managerial decisions.

This study on police management and organization has analyzed this exchange from the perspective of asking what knowledge base on police organizations and their environments can be deduced from the vast quantity of literature on police organizations, as well as a sampling of the general management literature. The major thrust of this effort has been to describe how this exchange takes place in law enforcement and what results have occurred. Secondly, the research has sought to transfer, where possible, knowledge from other organizational environments to the police discipline.

## Descriptive Findings

Through examinations of the literature in journals, books, monographs, and other research reports, the research team selected 62 relevant documents from the police discipline and 26 studies from the general social science disciplines. Each of these studies were reviewed and coded to deduce a synthesis of knowledge on environment and organizational autonomy.[9] The descriptive findings from this review and analysis are reported in the following section. Included in this section are discussions focusing on the number of studies by specific variables, the types of research designs used in sampled studies, the forms of analysis used, and finally a discussion of general findings.

## Number of Studies by Specific Variables

The conceptual framework for the cluster on Environment and Organizational Autonomy consisted of five unique variables: (1) Environment: Aggregrate; (2) Environment: Relational and Structural Characteristics; (3) Organizational Age; (4) Legal/Political Autonomy; and (5) Functional/Economic Autonomy. These variables proved to be quite broad in scope. The project team, therefore, was required to identify and define sub-variables for certain of these variables. Sub-variables were defined by analyzing the topical content of research studies for each of the five variables and then defining distinctive identifiers which would easily

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[9] It should be noted here that the phrase "deduce a synthesis" refers only to a synthesis of those studies reviewed for this project and is not intended as generalization to all literature sources.

describe the major content area of like studies. The research staff endeavored to minimize the number of sub-variables in each area and developed sub-variables which could be used in both the police and non-police disciplines.

Table 4 contains the listing of the studies reviewed for each sub-variable defined for this conceptual cluster. It should be noted that in some instances studies addressed more than one variable. Therefore, the totals in this table will equal more than the total number of studies reviewed for the conceptual cluster.

Table 4

NUMBER OF STUDIES REVIEWED BY SPECIFIC VARIABLE

(Conceptual Cluster I)

| Variable Number | Name | Police | Non-Police |
|---|---|---|---|
| 1 | Environment: Aggregate | 29 | 7 |
| | ● Socio-Economic Status | 13 | 4 |
| | ● Community Composition and Social Structure | 13 | 2 |
| | ● Government Organization Structure | 2 | 1 |
| | ● Cultural Development | 3 | 1 |
| 2 | Environment: Relational and Structural Characteristics | 37 | 22 |
| | ● Interagency Relations | 11 | 13 |
| | ● Organization-Client Interactions | 18 | 4 |
| | ● Number of Like Organizations in Environment | 2 | 2 |
| | ● Impact of External Funds | 0 | 1 |
| | ● Environmental/Client Resource Inputs | 6 | 2 |
| 3 | Organizational Age | 0 | 1 |
| 4 | Legal/Political Autonomy | 9 | 10 |
| 5 | Functional/Economic Autonomy | 16 | 7 |
| | ● Economic/Fiscal Autonomy | 15 | 3 |
| | ● Impact of Regulations/Administrative Controls | 1 | 4 |

The predominance of studies for this cluster were categorized as either (1) Environment: Aggregate or (2) Environment: Relational and Structural Characteristics. These variables, however, were both very broad and thus contained studies focusing on several diverse issues. This was the case for both the police and non-police samples. Many of these studies were carried out by political scientists and sociologists and were largely exploratory in nature. This observation applies for both of these broad environmental variables. There is a definite tendency in the literature by such social scientists to search for general environmental impacts on the organization.

There are 18 studies in the police sample which describe organization-client interactions. These studies by and large address interactions between the street level officer and the citizen. There was an obvious interest in this level of exchange which was initiated by sociologists in the late 1960's-early 1970's and furthered by the emphasis on police-community relations in this period. The studies by Black and Reiss (1970), Bordua and Tifft (1971), and Reiss (1971), as well as research undertaken for the President's Commission on Law Enforcement and Administration of Justice by Black and Reiss (1967), led others to describe in further detail patterns of behavior between police officers and citizens.

The literature reviewed for this study did not include any police studies on organizational age. This may be due in part to the general difficulty in performing such studies. The process of defining how internal organizational characteristics are affected by larger social or political events is difficult. Moreover, this absence of data may be due to a general lack of interest in the subject matter. The topic may be considered to be too esoteric for many researchers or for funding sources.

The literature reviewed for this study did reveal a considerable amount of research analyzing the effects of variations in legal and political autonomy on the organization. These studies yielded a substantial knowledge base on the impacts of variations in autonomy on the organization--its structure and management system. These studies could be defined as falling into one of two categories. Many researchers have analyzed the relationships of changes in the legal and political structure on the organization. Others research the effects of variations in levels of "ownership" on management and administration. Ownership in this context refers to the type of control by individuals or groups outside of the organization (e.g., stockbrokers, city council, city manager).

There were also a substantial number of studies in the police sample classified under the variable Functional/Economic Autonomy. This was most likely due to the fact that police agencies are governmental organizations and are reliant on larger decision-making bodies for funding and policy making. It is also due to an apparent interest on the part of political scientists and economists in researching relationships between socioeconomic factors and expenditures for municipal services.

## Research Designs

All selected studies were anlyzed to determine the type of research design employed and the treatment of variables. Studies were classified as fitting one of the following four design types: Exploratory, Case Study, Quasi-Experimental, or Experimental. Staff Researchers also coded whether pertinent variables appearing in this conceptual cluster were treated as dependent or independent variables.

Research Design Types. Table 5 depicts the results of analyzing the design types for sampled studies. As can be observed from these data, the overwhelming number of studies utilized either exploratory or case study designs. There are two likely reasons for this finding. First, extensive research in the area of police management is a relatively recent phenomenon. The advent of federal funds in the late 1960's helped generate this interest. Consequently, researchers and practitioners alike had very little in the way of a knowledge base to use as a foundation for future research. Therefore, their research efforts were predominantly exploratory in design. They were forced to ask questions about how environmental factors affect police management. Conversely, they were forced to rely on similar levels of inquiry to determine how police actions affected the community--its citizens and other governmental and private agencies.

Table 5

TYPES OF RESEARCH DESIGNS FOR SAMPLED STUDIES

| Types of Designs | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Exploratory | 28 | 46 | 20 | 77 |
| ● Case Study | 30 | 48 | 6 | 23 |
| ● Quasi-Experimental | 2 | 3 | 0 | 0 |
| ● Experimental | 2 | 3 | 0 | 0 |
| | 62 | 100% | 26 | 100% |

Secondly, the subject matter for this cluster makes it difficult to develop and implement quasi-experimental and experimental designs in either the police or the non-police sample. The measures utilized in studies of the environment are very difficult to control, let alone apply any form of random treatment. From the police sample, consider, for example, the subject of police officer-citizen interactions. An experimental design would seek to randomly assign cases into either an experimental or control group prior to

applying some treatment to the experimental police group. To help avoid potential problems associated with contamination, careful monitoring of the group's activities would be performed to assure that there was no interaction between the experimental and control group. This would be exceedingly difficult in an operational agency such as a police organization.

Similarly, consider the issue of legal/political autonomy. It is also very difficult to apply quasi-experimental or experimental designs for this area. To do so would require the matching of cities or jurisdictions in which the police agency operates and a careful monitoring of the effects a given program or change in policy may have on the management of the agency. This would be a complex piece of research which most projects would not have the resources to conduct. Consequently, research focuses on describing the various effects of interrelationships between the police agency and the executive level of government.

The same point can be made for studies conducted in industrial settings or in analyses of other forms of government organizations. Experimentation is quite difficult to accomplish in such operational agencies, especially when considering studies of the environment-organization interface.

This is not to suggest that knowledge cannot be derived from exploratory studies or research employing a case study design. Many of the works provided sound knowledge based on explicit definition of variables, appropriate sampling systems, and often sophisticated forms of statistical analyses. These works, by and large, however, do not yield comprehensive analyses of all variables bearing on a given relationship because of the difficulty in identifying and controlling for extraneous influences in a possible relationship. The result is that it is often difficult to compile knowledge thoroughly addressing all plausible reasons for an apparent relationship. In essence, it is very difficult, if not almost impossible, to pinpoint causal relationships among variables. Findings from studies then must be taken on face value and not interpreted in such a way that is not possible.

Treatment of Variables in Research Designs. As a secondary analysis of research designs, the treatment of variables (either independent or dependent) in sampled studies was classified to provide a further description of the state of the art. As alluded to earlier, organizational-environmental exchange is a two-way proposition. From the consideration of the research design, this proposition can be translated as treating environment as either a dependent or as an independent variable. Studies which analyze an environmental characteristic as a dependent variable are primarily researching how certain organizational variables affect some dimension of environment. On the contrary, studies which use an environmental measure as an independent variable usually research the affect of environment on the organization.

Table 6 presents data on the treatment of variables in design. Many studies reviewed analyzed more than one variable. Therefore, the total below equals more than the total number of studies for this cluster. Additionally, some studies in this cluster treated variables as both dependent and independent.

Table 6

TREATMENT OF VARIABLES IN RESEARCH DESIGNS

| Variable Number | Name | Police | | Non-Police | |
|---|---|---|---|---|---|
| | | Independent | Dependent | Independent | Dependent |
| 1 | Environment: Aggregate | 29 | 0 | 8 | 0 |
| 2 | Environment: Relational, Structural Characteristics | 20 | 18 | 11 | 6 |
| 3 | Organizational Age | 0 | 0 | 1 | 0 |
| 4 | Legal/Political Autonomy | 9 | 2 | 10 | 1 |
| 5 | Functional/Economic Autonomy | 1 | 13 | 6 | 2 |

These data indicate that most researchers have analyzed the effects of environmental factors on the organization. This is true for both the police and the non-police samples. A significant percentage of studies in the police sample (39 studies), for instance, researched the impact of some feature of the environment on other dimensions of the organizational and management structure.

The data also point out that the sampled police studies on Functional/Economic Autonomy treated this factor principally as a dependent variable. Thus, it can be concluded that research has assessed the possible relationships between other variables and degrees of functional/economic autonomy. Many of these studies examined relationships between other environmental variables and patterns of expenditures for police service. Based on analyses of studies for this project, very little research has been conducted assessing the effects of expenditure patterns on the organization.

For the non-police sample, the utilization of this variable generally reflected an interest in assessing changes, or perceptions of changes, in administrative or regulatory factors on management and organization. These studies quite often treated this variable as a measure of environmental uncertainty and attempted to identify patterns of managerial reaction to such changes.

## Methods of Analysis

An important task in analyzing research studies for this project was the specification of the form of analysis used. This coding was to provide further information as to the state of the art in management research. Four levels of statistical analysis were used. These were qualitative, univariate, bivariate, and multivariate.

Table 7 contains a breakout of observed forms of analysis for variables in this cluster. These data depict a significant variation between the treatment of variables in the police sample as opposed to the non-police sample. The studies in the non-police sample employ more sophisticated levels of analyses than those in the police sample. This was due in part to the use of the Administrative Science Quarterly as a target journal in the general management arena. This journal uses a very rigorous, standardized format of the reporting of research. Selected articles follow a comprehensive approach wherein they discuss the theoretical base underlying a piece of research, carefully identify the potential contribution of their research to the field, succinctly define variables, and proceed through a detailed statistical analysis of findings, quite often relying on inferential analytical techniques. The police journals reviewed for this study did not follow such a format for this conceptual cluster or for any other.

Table 7

METHODS OF ANALYSIS FOR SELECTED STUDIES

| Methods of Analysis | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| • Qualitative | 20 | 32 | 2 | 8 |
| • Univariate | 11 | 18 | 3 | 12 |
| • Bivariate | 12 | 19 | 5 | 19 |
| • Multivariate | 19 | 31 | 16 | 61 |
| | 62 | 100% | 26 | 100% |

Of the 19 police studies which contained multivariate forms of analysis, 17 researched the relationships between general socioeconomic and community composition factors and organizational issues. These studies were largely exploratory in design and sought to explain variations in police organization characteristics according to environmental issues.

To illustrate, many studies examined the relationship between certain socioeconomic and community composition factors and expenditures for police service. Cole and Gamble (1979), for example, researched the relationships between population, community racial composition, income levels, and population change and expenditures for police service. Similar studies by Hirsch (1959), Rogers (1969), and Wiecher (1970) utilize these and additional variables in researching patterns of police expenditures. These researchers applied multivariate statistical techniques when examining these relationships. Consequently, they were able to infer as to relationships between such environmental variables and expenditures.

It can be concluded, therefore, that law enforcement research on environmental-organization exchange has in many cases applied rather unsophisticated forms of analysis. In fact, 48% of those studies reviewed resorted to qualitative or univariate forms of analysis. This will undoubtedly limit the potential knowledge concerning many environmental-organizational issues, for it is difficult to derive knowledge from descriptive statistics.

Many of the studies on police-citizen interactions, as well as others describing some aspect of environment-organization relations rely on qualitative or univariate statistics. While many of these works have come to be known as classics in the field, their findings, in a strict methodological sense, have only limited generalizability. This is in contrast to studies in the non-police sample which examine related organizational-environment topics and apply more sophisticated statistical techniques so as to produce a more generalizable finding. Consider studies, for example, on "boundary spanning" or on "environmental uncertainty," two topics which have been subjected to thorough statistical analyses.

## Presentation of Descriptive Findings Produced by Sampled Research Studies

Patterns of relationships between variables were tabulated for all studies reviewed in order to compile descriptive data on the state of the art as exemplified by the literature. These findings were prepared for both the police and non-police samples. The results of this synthesis are displayed by variable and sub-variable in Exhibit A. Findings have been ordered by variable to facilitate a comparison between the police and the non-police samples. It should be noted that these data are descriptive in form and thus do not suggest that knowledge has been deduced from these findings. Knowledge base strengths and weaknesses are analyzed in the section of this chapter entitled "Inferential Findings." This section also includes a narrative discussion of the findings by specific variable.

Exhibit A

SYNTHESIS OF DESCRIPTIVE FINDINGS:

ORGANIZATIONAL ENVIRONMENT AND AUTONOMY

| Police Studies | Non-Police Studies |
|---|---|
| 1. Environment: Aggregate | 1. Environment: Aggregate |
| a. <u>Socioeconomic Status</u> | a. <u>Socioeconomic Status</u> |
| • Certain socioeconomic variables correlated positively with citizens' perceptions of police (age, race, income), with discretion usage by patrol officers (race, family status, social status), and with amount of crime (racial and age structure of community and unemployment). | • Evidence that client income plays a critical role in determining levels of organizational expenditures. |
| • Indication that socioeconomic status of citizens not related to professionalism of police chief. | • Indication that degrees of uncertainty in external environment have a negative relationship on normative incentives and internal satisfaction of employees. |
| b. <u>Community Composition/Social Structure</u> | b. <u>Community Composition/Social Structure</u> |
| • Demonstrated positive linkage between community resources, pct. non-white population, employment/residence ratio, city fragmentation, service conditions of city, and expenditures for police service; population size is not related | • Indication that population density, urbanism, pct. non-white population, and community income are important determinants to organizational change in schools. |

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| Police Studies | Non-Police Studies |
|---|---|
| to expenditures for police; some indications that urbanism, population density, rate of growth, and pct. population change may be positively related to expenditures for police. | • Indication that housing deterioration in a community affects organizational effectiveness in the fire service. |
| • Indication that social and political development may positively determine the degree of autonomy the police organization is provided. | |
| • Indication that community homogeneity produces high degree of consensus as to police goals and objectives. | |

c. Government Organization Structure

    • Indication that local community control of police may produce positive citizen perceptions of the police.

    • Indication that a greater degree of centralization of general government services is negatively related to police autonomy.

c. Government Organization Structure

    • The literature reviewed is silent on this variable.

d. Cultural Development

    • Suggestion that culture affects the degree of support by citizens for the police and may limit the response of police organizations to social changes.

d. Cultural Development

    • State level planning and development organizations are more innovative in traditionalistic, as opposed to idealistic or moralistic cultures.

Exhibit A (continued)

| Police Studies | Non-Police Studies |
|---|---|
| 2. Environment: Relational, Structural Characteristics | 2. Environment: Relational, Structural Characteristics |
| a. Interagency Relations | a. Interagency Relations |

Police Studies

2. Environment: Relational, Structural
   Characteristics

   a. Interagency Relations

   ● Evidence that police officers use their
     discretion to apply informal means of
     addressing social problems rather than
     using referrals; formal establishment of
     boundary spanning (interagency) liaison
     has little effect on referrals; police
     role perception and social cohesion
     negatively affect boundary spanning
     activity and therefore referrals.

   ● Formal relationships for inter-police
     agency planning, coordination used
     sparingly in neighboring jurisdictions.

Non-Police Studies

2. Environment: Relational, Structural
   Characteristics

   a. Interagency Relations

   ● Evidence that several environmental and
     organizational variables are positively
     linked to increased referral to and
     coordination with other organizations in
     the environment. Among these variables
     are: geographic dispersion, number of
     like organizations in the environment,
     and the existence of formal working
     relationships with other organizations.
     There are mixed findings concerning the
     relationship between organizational size
     and referrals. Large organizations are
     shown to use more referrals in a
     university environment while small
     organizations generate more referrals in
     the case of employment training
     centers. It is likely that the latter
     finding is more generalizable to police.

   ● Research shows that there is a
     relationship between interdependence of
     an organization and standardization of
     organizational services and referrals.
     These relationships are curvilinear. As
     organizations become more standardized
     and interdependent, they generate more
     referrals. This trend changes, however,
     once standardization and interdependence
     reach a certain point.

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Exhibit A (continued)

| Police Studies | Non-Police Studies |
|---|---|
| | • Research indicates that there is a positive linkage between the number of formal ties to community groups and power of an organization. |
| | • Evidence that input from external opinion leaders in a given industry may influence managerial action resulting in increased organizational effectiveness. |

b. Organization-Client Interactions

  • Indication that a citizen's experience with the police affects perceptions (mixed findings as to direction of effect).

  • Evidence that deference to police by citizens (especially by juveniles) will affect use of discretion.

  • Research finding that bystanders occasionally have an influence on the application of police discretion.

  • Evidence that prior victimization does not affect citizen perceptions.

  • Indication that race and seniority of officers affects police-citizen relations.

b. Organization-Client Interaction

  • Indication that client-organization interaction is likely to increase in frequency as clients' perception of potential benefit from the interaction increases.

  • Indication that a perception of conflict between organization and community groups is likely to decrease the frequency of client-organizational interactions.

  • Evidence that number of clients has no relationship to organizational innovation.

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Exhibit A (continued)

| Police Studies | Non-Police Studies |
|---|---|
| c. Number of Like Organizations in Environment | c. Number of Like Organizations in Environment |
| ● Finding that the number of police jurisdictions in a metropolitan area has no relationship to per capita expenditures for police service. | ● Research indicates that there is a positive relationship between the number of like organizations in the environment and the number of referrals to other environmental organizations. |
| | ● Evidence that there is a relationship between the number of competing organizations in the environment and changes in organization structure, task assignments, and decision-making systems.[48] |
| d. Impact of External Funds | d. Impact of External Funds |
| ● The literature reviewed is silent on this topic. | ● There is an indication that the availability of federal funds has a positive relationship to the size of the administrative component of the organization and to organizational size in general. |
| e. Environmental/Client Resource Inputs | e. Environmental/Client Resource Inputs |
| ● Evidence that there is a relationship between amount of crime and expenditures for police service. | ● The literature reviewed is silent on this variable. |
| ● Indication that the rate of crimes against the person positively affects the number of police officers per capita. | |

Exhibit A (continued)

| Police Studies | Non-Police Studies |
|---|---|

**Police Studies**

- Indication that the number of offenses reported positively affects the amount of discretion applied and that type of offense affects amount of discretion used for white citizens and not for black citizens.

3. Organizational Age

- The literature reviewed is silent on this variable.

4. Legal/Political Autonomy

   a. <u>Type of Government/Control</u>

- Finding that city-manager governments spend more for police service than non-city-manager governments.

- Indication that patrol officers are more productive in city-manager cities as opposed to non-city-manager jurisdictions.

- Indication that negative perceptions toward city officials by police officers are related to low officer incentives in police agencies.

**Non-Police Studies**

3. Organizational Age

- Indication that there is a relationship between organization age and interaction among like organizations in British trade unions.

4. Legal/Political Autonomy

   a. <u>Type of Government/Control</u>

- Finding that public political attitudes toward an industry and its products or services is related to propensity to alter internal organizational tasks and functions.

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| Police Studies | Non-Police Studies |
|---|---|

b. <u>Degrees of Autonomy</u>

- Suggestion that there is a negative relationship between governmental centralization and autonomy of police agency.

- Finding (based on qualitative analysis) that greater centralization of government services produces more professionalism in police service.

b. <u>Degrees of Autonomy</u>

- Evidence that a greater amount of organizational control of private organizations (more control of stock) is positively related to the size of the administrative component. Similarly, research shows that there is a negative relationship between autonomy and amount of administrative intensity portrayed by executives.

- Indication that there is a curvilinear relationship between organizational interdependence and coordination with other external organizations. As organizations become more interdependent they increase coordination activity until they reach a point where they are so interdependent that coordination decreases.

5. Functional/Economic Autonomy

   a. <u>Economic/Fiscal Autonomy</u>

- The following socioeconomic and community composition variables were positively related to expenditures for police white collar population, population density, employment/residence ratio, urbanism,

5. Functional/Economic Autonomy

   a. <u>Economic/Fiscal Autonomy</u>

- Finding that community income levels have a significant positive relationship with expenditures for fire services.

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Exhibit A (continued)

| Police Studies | Non-Police Studies |
|---|---|
| metropolitan status, rate of growth, fiscal resources in community, amount of manufacturing, ethnicity, stability in community, and pct. population over 65. | ● Finding that cities with permanently appointed fire chiefs, as opposed to volunteer fire chiefs, spend more for fire services. |
| ● Finding that size of city population is not related to expenditures for police. (Other variables which co-vary with city size are stronger determinants of expenditures.) | ● Indication that variability in demand for industry products and, thus variability in fiscal autonomy, is associated with decentralized decision-making structures and with participative management systems. |
| ● Indication that number of police jurisdictions in a metropolitan area is not related to police expenditures. | |
| ● Indication that city-manager governments spend more for police service than non-city-manager governments. | |
| ● Indication that increases in costs of police services are primarily due to inflation and to increases in overall city expenses, not to any special emphasis on police resulting in significant increases in police budgets. | |
| ● Preliminary finding that decentralization of authority in large police agency does not result in significant cost increases in police services. | |

Exhibit A (continued)

| Police Studies | Non-Police Studies |
|---|---|

b. Impact of Regulations/Administrative Controls

- Evidence that civil service systems emphasizing adjudication and policy making roles have a positive effect on police agency use of civilian personnel and organizational change.

- Indication that civil service systems accenting administration and regulatory roles have a negative effect on police agency use of civilian personnel, material incentives for police, and incentives for higher education. Civil service systems exhibiting regulatory roles have a negative effect on police use of extensive selection standards.

- Indication that civil service systems stressing policy making roles have a positive effect on the amount of recruiting activity by police agencies.

b. Impact of Regulations/Administrative Controls

- Evidence that potential and enacted power of an organization is affected by its ties to the community. Linkages with environmental elements can modify power relations within an organizational setting.

- Indication that perceived uncertainty in degrees of government regulatory control over an industry is positively related to internal management uncertainty, and hence tendencies to alter organizational structures, task assignments, and decision-making networks.

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Inferential Findings

This study on police management was designed with two analytical components. The previous section discussed descriptive findings for this conceptual cluster on environment and organizational autonomy. This section presents inferential findings which in the aggregrate can be said to produce a knowledge base on the interrelationships between environment and organizations. This section presents knowledge base strengths and knowledge base weaknesses and examines the policy relevance of available sampled empirical research.

The literature analyzed for this study yields certain specific knowledge about the environmental-organizational exchange. Knowledge in this context is derived from research that is methodologically sound and is generalizable. The key herein is the term generalizable. One unique study may be generalizable if it utilizes specific research techniques deemed to produce knowledge. Further, knowledge in some occasions is not constructed until multiple studies on the same topic are completed. Presented in this section is a discussion of knowledge strengths and knowledge weaknesses generated from sampled research. These knowledge base strengths are classified into four topical areas:

1. Police Organization and Management in the Cultural Context.

2. Police Organization and Administration in the General Community Context.

3. Police Organization and Administration and Governmental Structures.

4. The Influence of Environmental Factors in Police-Citizen Interactions.

These four subjects in the aggregrate can defined as "the environment" in which the police organization operates. A discussion of these environmental parameters starts with perhaps the most indirect influence, that of culture, and proceeds to more specific influences. General community influences have more of a direct bearing on the organization, but still less than governmental influences. Finally, analyses of the police-citizen interaction focuses on organizational-environmental exchanges at the lowest possible level--from the perspective of the individual member of the organization interacting with a representative of the environment.

## Police Organization and Management in the Cultural Context

Beyond the level of the local community, police organizations are affected by their larger cultural environments in which they operate.[10/] Research on comparative police organizations helps provide an understanding of this cultural context and yields several insights for possible considerations of reform of American police organizations.

In America, policing is a function that is decentralized to the local (city or county) level of government. Some criticize this organizational format as being inefficient and ineffective, and urge consolidation or merger of police agencies into larger units. Bayley's (1971) propositions, based on studies of comparative policing, should give pause to those who would support merger. Developed from the literature and his own research on police in America, Britain, Japan, France, England, and India, Bayley suggests that the level of police accountability in a society tends to evolve from the level of autonomous and effective political power. Where political power is highly centralized, the police are centralized as well into national agencies (perhaps having regional branches); where effective political power is dispersed among local units of government, policing is also a local function.

One implication of Bayley's propositions is that consolidation of American police agencies into metropolitan or regional units, without a corresponding consolidation of general political power and authority, would make American police radically independent of the people they serve and govern. This may well produce intolerable results in a democratic society which prides itself on civilan control of the police to ensure their adherence to the rule of law.

Other comparative studies of the police suggest that there may in fact be real benefits to the decentralized police structure not usually noted by either critics or supporters of the American system. Consider the research of Gamson and Yuchtman (1977) on police in Israel. They suggest that centralization of political power at the national level, penetration of politics into other spheres of social life, and continuity of political powerholders lead to strong police dependence on political authorities. Furthermore, this dependence (when found in conjunction with other characteristics) may open the police up to serving as tools for the political purposes of those central authorities, as seems to have been the case in Israel.

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[10/] It should be stressed again that this study only reviewed studies on comparative policing published in the United States. The knowledge base on this topic is, therefore, limited to these studies.

It is not the purpose of this study to emerge as advocates of unbridled decentralization of the police. To the contrary, the research literature suggests that there are costs as well as benefits to this organizational form. Consider another of Bayley's (1971) propositions. He suggests that where the police function developed in response to consensually determined public needs, policing is centralized (usually at the national level); where it developed in response to separate "private" needs, it is decentralized. Assuming that the process of institutionalization has tied the police more closely to "private" rather than "public" sorts of needs, it seems clear that the response of a decentralized police occupation to broad social change will be highly variable. In some cases, especially when adoption of innovation is at stake, this may constrain police agencies from making needed improvements or from adopting innovations that might accually improve the quality of local police service. Clark (1965) examines this relationship and expands upon the premise that American police agencies are isolated from the community and thus slow to innovate needed changes.

Perhaps the greatest strength of comparative police research is its ability to focus on the limits to police reform in any given society. Consider, for example, the problem of public ambivalence toward the police. This ambivalence is usually thought to lead to the social isolation of the police from the community they serve. From what does this spring, and how might management overcome it?

Some comparative studies suggest that there may not, in fact, be an answer to this question. Consider, for example, the cases of Japan, Israel, Scotland, and the United States. For all four, data is available to build a comparison (see respectively, Banton, 1964; Skolnick, 1966; Bayley, 1971; and Gamson and Yuchtman, 1977). Ambivalence to the police and police isolation are problems common to the United States and Scotland but, as best can be ascertained from these studies, is a relatively rare phenomenon in Japan and Israel. This is so, despite the fact that all four nations are highly urbanized, densely settled, and economically developed, and that all four have not been strangers to violence historically. What in fact seems to separate the four countries are the different conceptions of legitimate social order inherent in each and the roles of the police vis-a-vis those conceptions of order.

The differences in social order are quite striking and provide a sound knowledge base. In Japan social order is a shared value between the police and general society (Bayley, 1971). Thus, a high premium is placed on order maintenance (e.g., deference, civility). This has a profound effect on the police. Law enforcement expects and receives a greater degree of public support when carrying out their enforcement objectives. In Israel, the situation is somewhat different. Order is negotiated and renegotiated by the government and various ethnic, religious, or social class groups (Gamson and Yuchtman, 1977). It is, nevertheless, negotiated with a larger, common purpose in mind: the maintenance of internal stability and unity as a

resource to face external political and military threat. Despite this difference, Israeli police are similar to their Japanese counterparts in that they, too, are legal functionaries without being legal symbols. They serve at the behest of the government, as one tool (among many) which the government might employ in pursuit of order.

In the United States and in Scotland the police are no less legal functionaries, but they also carry a heavy burden of symbolism along the way (Skolnick, 1966; Bayley, 1971). Social order in both countries is achieved through a delicate balance between maintaining and promoting an individual's freedoms and rights and guaranteeing the safety and security of the larger population. There is no larger collective purpose to this balance as there is in Japan and Israel. Rather, it is a balance pursued for its own sake. In both the United States and Scotland police officers are primary actors in the striking of that balance; in both they are active negotiators of the social order, not in service to any larger cultural ideals or national defense needs, but simply to maintain that order. In both, the police (and not some other institution) become the symbolic focus of the order-maintaining process and in both, public ambivalence toward police and social isolation of the police are common (Clark, 1965; Skolnick, 1966; Bayley, 1971).

The implication of this research is not that changing public ambivalence to the police in America and Scotland is impossible. Rather, it is to say that there are limits to the possibility of reform in the police function; limits that may be (and in this particular case, are) set by social and cultural forms beyond the power of a reformer to control.

Police management and managers must heed this limitation when pursuing changes in the police function. A shift in priorities by a police manager from an emphasis on order maintenance to an emphasis on strict law enforcement is an example of how this limitation applies to reform movements. Management must not lose sight of this cultural influence which necessitates performing both functions. Moreover, the tendency to view the police as symbols, rather than legal functionaries, places limits on the amount of public support that can be enjoyed by the police. To a certain extent, the police will always be isolated from the public. This is an indirect cultural influence in the police-community interrelationship.

In summary, these studies illustrate three findings concerning the impact of culture on police management:

- That the police function is decentralized to the local level because of cultural influences institutionalizing general political power and authority at the local (city or county) government level. This influence, however, tends to promote highly variable response by the police to social changes.

- The police in American society tend to be viewed as symbols of authority. This perception among the clientele with whom the police must interact tends to limit the amount of possible support to be provided by citizens to the police.

- The police are expected to strike a balance between maintaining public order and guaranteeing individual rights in American society. This cultural influence limits the amount of possible police response to any one social problem, whether it is a problem requiring order maintenance or law enforcement.

These findings, although based on empirical research, are not presented as conclusive propositions. It should be kept in mind that the studies reviewed for this conceptual cluster were primarily exploratory in design. Therefore, the inferences to be derived from such studies must include qualifications. For example, the works of Banton (1964) and Skolnick (1966) describing the perception of the police as symbols of authority were not based on research findings developed from hypotheses and derived from multivariate statistical analyses. Rather, they were based largely on observations and qualitative analyses. Such research does not normally account for influences of extraneous variables: those variables which may affect and negate a seemingly plausible relationship between a dependent and independent variable. Possible intervening variables affecting the citizen's perception of the police are the personality of the individual officer, procedural or organizational factors influencing an officer's behavior, or the impact of the social group on the police-citizen interaction.

In short, there is certainly room for much future research on the topic of cultural influences. This research could and must likely take the form of replications and extensions of some of the studies noted in this review.

## Police Organization and Administration in the General Community Context

What influence does the local community environment have on police organization and management? Whereas cultural influences stem mostly from general societal values, norms, and legal and political characteristics, many other influences are generated from local community value systems. Many research studies examined for this project examined these influences and provided a knowledge base on the police organization-community exchange.

Two specific areas of knowledge can be pinpointed on this subject: (1) variations in citizen perceptions of the police and police perceptions of the community; (2) variations in crime levels and community characteristics and expenditures for police services. These two sub-topics can also be

examined in the aggregrate as general environmental uncertainty in the police organization. Environmental uncertainty is a term used by researchers in social science to measure managerial perceptions and reactions to changes in the operational environments of organizations.

Variations in Citizen Perceptions of the Police and Police Perceptions of the Community. Several studies have demonstrated that socioeconomic status plays a critical role in shaping perceptions of police-citizen exchange. The environment in which the police organization resides helps dictate both the citizen's perception of the police and, conversely, the police officer's perception of the organization's clientele. Smith and Hawkins (1973) and Thomas and Hyman (1977), for example, show that the racial and age composition of a community influence a citizen's perceptions of police service. Moreover, income levels in a community have also been shown to be direct determinants of positive perceptions of police service (Smith and Hawkins, 1973).

These demographic factors and others were considered by Boggs and Galliher (1975) in their research showing "street people," or those citizens of lower socioeconomic status who frequently appear on city streets, tend to hold more negative perceptions of police in their neighborhoods than do "household respondents" of the same socioeconomic status. Their research suggests that this social status dimension directly affects perceptions and that research purporting to measure citizen attitudes should include samples of such street people to be truly representative. This finding should be taken into consideration when reviewing studies such as the research by Meyer, Magedanz, Kieselhort, and Chapman (1979), which showed that young males from lower socioeconomic classes tended to be involved in a large proportion of assaults against the police. It may not be just young males from lower socioeconomic classes, but young males who frequent the street who engage in such behavior.

What seems to be emerging from this research is an indication that citizens will perceive the police differently in communities with varying socioeconomic characteristics. Community traits seem to be more important in shaping perceptions than is prior crime victimization (Smith and Hawkins, 1973). Those communities with a higher proportion of lower social status citizens, and particularly those communities where a considerable proportion of these citizens are "street people," are likely to incorporate more negative perceptions of the police than other types of communities.

This finding must be considered in the context of police-citizen encounters, as will be discussed in this chapter. It has been shown that street level police-citizen interactions are determinants of citizen perceptions of police service (Smith and Hawkins, 1973; Boggs and Galliher, 1975). This finding raises the question of whether it is the community characteristics or the interactions themselves which determine these perceptions. It is likely that both factors play critical roles, although this supposition cannot be substantiated through available research.

The community also plays an important role in shaping police officer perceptions. In his study on organizational climate in police agencies, Duncan (1972b) found that perceptions of turbulence in the environment, largely produced from police perceptions of citizen's views of the police, had a dramatic influence on organizational climate measures (e.g., satisfaction, commitment, normative incentives). This suggests that the police formulate perceptions of their organization based in part on environmental influences. These perceptions and values, of course, are shaped in part by the experience and background of police officers. Groves and Rossi (1972) have shown that seniority and racial stratification in police agencies affect police perceptions of community hostility. The available research, as reviewed for this study, does not provide clues as to the relative importance of community influences on police perceptions when analyzed in conjunction with police officer peer influences, individual personality, and experience. It may be that experience and socialization are determinants of police views of the community.[11] This correlation, however, cannot be posited from the research reviewed for this study. This is certainly a subject for future research.

Variations in Crime Levels. Levels of crime in a community also have a direct bearing on the police organization and its management system. Research on this relationship provides knowledge as to the relative effects of crime on police production strategies, suggests possible relationships between crime and management and organization systems, and examines the effect socioeconomic and political factors have on the crime-organization relationship.

Morgan and Swanson (1976) research these relationships by using path analysis to ascertain the relative relationships of numerous socioeconomic and community composition variables (e.g., population density, amounts of manufacturing, community population stability), governmental structure variables, as well as crime levels on "police production strategies." These strategies were defined as expenditure/manpower levels, community relations programs, technology levels, and progressive recruitment patterns. Morgan and Swanson initially found that all of these production strategies were related to a community's socioeconomic, political, and crime characteristics. Two socioeconomic factors, for example, density and manufacturing, were shown to be predictors of technology in police agencies. This finding provides further evidence that the environment plays a critical role in shaping police organization and management strategies. Further, political structure was shown to have a direct bearing on community relations programs and progressive recruitment strategies.

Crime levels were shown to affect police expenditure decisions, but did not have relationships with any other police production strategies. Upon

[11]/Further information on the effects of police socialization can be found in Chapter IV: Internal Structural Differentiation.

examining this relationship, Morgan and Swanson hypothesized that crime and political structure are in essence an intervening variable in the relationship between socioeconomic characteristics and police expenditures. This hypothesized relationship did not hold up, however, when subjected to path analysis. It was found at certain community characteristics (affluence, ethnicity, and size) are indirectly correlated with police expenditure levels and directly related to crime levels and city revenue levels. Measures of political climate were not shown to be related to the final dependent variable (police expenditures). Thus a model can be deduced which shows that crime has a direct effect on police expenditures, and that this crime rate is affected by sociodemographic factors. This model appears as Figure 3.[12]

Figure 3

RELATIONSHIPS OF SOCIODEMOGRAPHIC FACTORS,
CRIME RATES, AND CITY REVENUE ON POLICE EXPENDITURES
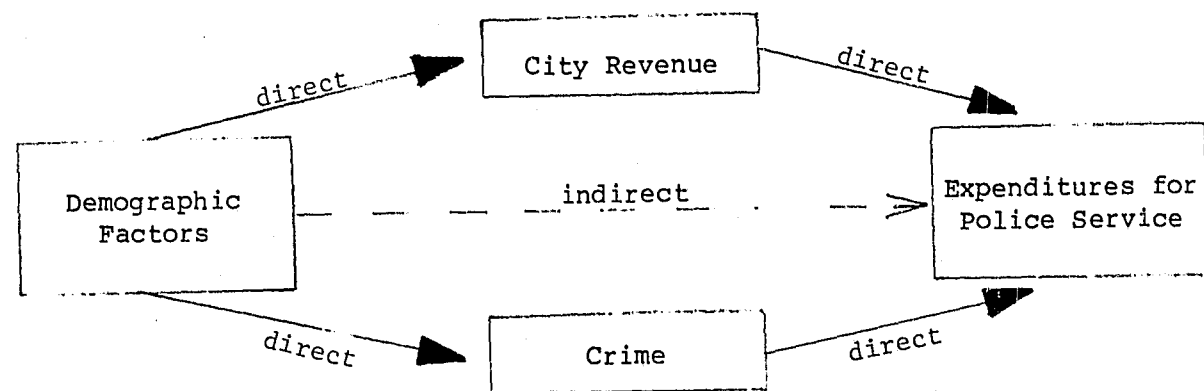


The relevance of this finding by Morgan and Swanson (1976) is enhanced by the study by Wilson and Boland (1978). Their research showed that the total size of the police force can be explained by the rate of crimes against the person and funds available within the city. The rate of crime against property did not appear to be related to police funding or manpower levels. Specific demographic factors (e.g., percentage of non-white population, population density) were shown to be related to levels of crime against the person. Thus, the relationships suggested by Morgan and Swanson can be viewed more specifically as pertaining to certain crime types.

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[12]/This model was developed from a similar model presented by Morgan and Swanson (1976:492).

This model takes on even more relevance when considering other research on police expenditure patterns. The literature contains several studies, largely performed by political scientists and economists, which analyze the relative relationships of a number of sociodemographic and community composition characteristics. The literature establishes a sound knowledge base showing that urban cities with a large percentage of non-white population, greater urbanism, and density will spend more for police services (Gabler, 1971; Cole and Gamble, 1979; Rogers, 1979). Further, it has been shown that communities with a larger tax base, greater amount of manufacturing, and a larger ratio of employees to residents will spend more for police service (Hirsch, 1959; Weicher, 1970).

These findings can be placed in perspective by the Morgan and Swanson (1976) study and the research by Wilson and Boland (1978). General socioeconomic and community composition characteristics do play a critical role in shaping police expenditures and programs. These influences, however, also play an important role in determining city revenue levels and crime levels, each of which has a direct bearing on police expenditure levels.

The model posited by Morgan and Swanson (1976) can then be confirmed. As shown in Figure 3, certain sociodemographic factors are related to both crime rates and city revenues. These two variables then largely explain police expenditure patterns. It should be reiterated here that governmental structure was not found to be significantly related to police expenditures when controlling for crime levels and city revenues (Morgan and Swanson, 1976:506).

It should be pointed out here that population size is not attributed to expenditures for police service. Studies which control for size along with other sociodemographic and community variables demonstrate that size is not a strong determinant of expenditure levels and that income levels, racial composition characteristics, manufacturing levels (directly correlated with income), and service criteria (e.g., size of night-time population, political fragmentation) are more direct determinants of police expenditures (Hirsch, 1959; Weicher, 1970).

These studies demonstrate that crime plays an important role in influencing police managerial and administrative decisions because it determines, to a great extent, what levels of resources are made available to police organizations. This notion, of course, is tempered somewhat by the finding of Wilson and Boland (1978) that it is crimes against the person and not against property which dictate expenditures for police service. Furthermore, crime is not the sole criterion for determining police expenditures. Community financial resources play an equally important role.

This finding also permits a reinterpretation of findings suggesting that inflation is the primary contributor to increased expenditures for police service (Bordua and Haurek, 1970; Greytak, 1975). These studies may well be accurate in suggesting that expenditures for police service have not increased

more than expenditures for other government services (Greytak, 1975), but the primary determinant is likely to be available revenue in the community, not any prioritization for funding among government agencies or services.

What are the implications of these findings for management and administration? Most likely, the most salient implication is that city officials will not in all probability be able to increase funding for police services solely due to crime increases. A downturn in the fiscal wealth of a community, although accompanied by a spiraling increase in crime, may not portend increases in expenditures for police service.

There are many avenues for future research suggested by these findings. Little is known, for example, about the direct effect of changes in crime rates on police organizational structure, the informal organization, or organizational achievement. As crime rates increase how does management achieve satisfactory achievement levels if socioeconomic conditions do not permit increases in expenditures?[13] Most of these questions remain unanswered, although implications can be gained from the following reviews of research studies on environmental uncertainty.

Environmental Uncertainty and the Police Organization. The study by Duncan (1972b) showing that police officer perceptions of turbulence in the environment were associated with low officer satisfaction and commitment and lower scores on survey items measuring normative incentives to the profession, suggests that perceived uncertainty in the environment (that is, the community) will affect the internal organization. The general management literature presents many studies which reinforce and expand upon this notion. Tosi, Aldage, and Storey (1973), for example, in a research study based on the classic study on environmental uncertainty by Lawrence and Lorsch (1967), showed that there is a negative correlation between perceptions of external environmental uncertainty and internal uncertainty. The study by Tosi, Aldage, and Storey (1973) classified uncertainty as measures of perceived volatility in the larger environment. The study by Lawrence and Lorsch produced a conflicting finding. Their results more closely patterned those of Duncan (1972b) in showing that perceptions of uncertainty in the environment give rise to perceptions of uncertainty in the work place.

Environmental uncertainty has come to play a major role in the general management literature. What additional knowledge can be gained from reviews of studies on this topic? It has been shown that conditions of extreme change in the demand for organizational services or products can alter the organizational structure and render its modes of coordination and control obsolete (Stinchcombe, 1959). Further, it has been demonstrated that

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[13] This inquiry may raise the question as to what achievement criteria are being used (e.g., arrest rates, citizen perceptions). Further information on this subject is contained in Chapter VII: Organizational Achievement.

organizations having environments with rapidly changing dimensions will be more likely to institutionalize more flexible managerial and administrative systems and structures.

Negandhi and Reimann (1973), for example, have shown that firms with a greater concern for environmental changes are likely to have fewer layers of hierarchy in their organizational structures and a greater degree of decentralization in decision-making systems. These managerial and organizational characteristics are often employed to ensure a greater adaptation of the organization to the environment. The subject of decision-making as it is associated with environmental uncertainty was also analyzed by Duncan (1972a, 1973). He indicates (Duncan, 1973:287) that:

There is a difference in the way decision units (those managers charged with making decisions) organize themselves for making routine and non-routine decisions, under different conditions of perceived uncertainty and perceived influence over the environment.

He explains these differences in decision-making by demonstrating that managers perceiving their environment as highly uncertain and perceiving their organization as having low influence over the environment were much more apt to encourage participation in decision-making and less likely to rely on formal hierarchical levels in making decisions (Duncan, 1973:285).

What knowledge can be deduced from this literature concerning organizational effectiveness? It must first be acknowledged that effectiveness can be measured in many different ways and that researchers do not always operationalize their definition of effectiveness. Given these differences, Lawrence and Lorsch (1967) showed that increased effectiveness was achieved by organizations which differentiated themselves internally in response to environmental uncertainty and adopted management systems and procedures to assure worker integration. This finding, basically, suggests that different types of organization structures are appropriate for different types of situations generated by the operating environment (see also Duncan, 1973).

Other researchers have indicated that his finding may not always hold in alternative organizations, once different measures of effectiveness are used (Negandhi and Reimann, 1973; Pennings 1975), and that managers perceptions of environmental uncertainty may be the key factor in predicting the organization's response to environmental influences (Dill, 1958; Negandhi and Reimann, 1973). Dill (1958:443) summarizes this influence of management's perception by suggesting that:

The autonomy of managerial personnel is a function of the task environment structure, the accessibility of information about the task environment, and the managerial perception of the meaning of environmental information.

In short, it can be concluded that management in many organizational settings does resort to modified management systems and processes, so as to better "manage" environmental influences. A given manager's response to these influences will vary and the effect of adapting to environmental influences appears to be mixed. Nevertheless, there is enough knowledge available to suggest that changes in the environment stimulate managerial and administrative changes and that the need to be flexible and to adapt is important in all organizational settings.

The significance of these studies for policing is that they point out a clear need to learn more about how the police organizational responds to environmental influences. Several questions remain unanswered. Research is needed, for example, on what impacts on the police organization structure are produced by perceptions of environmental uncertainty? Duncan (1972b) has provided some data on this relationship, but certainly there is room for further research. Furthermore, there is a void in the police literature concerning the effects of adapting to environmental changes. As alluded to earlier, answers to this inquiry may vary, depending on the definition of effectiveness. Given the state of the art in the police literature on this topic, it is apparent that research could be initiated to examine this effect as produced by organizational decision-making.

## Police Organization and Administration and Governmental Structures

A related but different inquiry as to the effect of environment on the police organization is the influence of governmental structure on the organization. When viewed from the perspective of this study's conceptual framework, this area of inquiry is subsumed under the variable entitled "Legal/Political Autonomy." The literature on this topic can be categorized into two primary issues: (1) governmental structure and expenditures for police and perceptions of police service and (2) interorganizational relations in local government.

### Governmental Structure and Expenditures for Police and Perceptions of Police Service.
The literature on governmental structure and police expenditures falls into two general categories. One stream of inquiry researches the relationship between community control of the police and expenditures (Ishak, 1971; Ostrom and Parks, 1971; Ostrom, Baugh, Guarasci, Parks, and Whitaker, 1973; Ostrom and Whitaker, 1973), while another looks at the relationship of types of government (city manager vs. council-mayor) and expenditures (Wilson and Boland, 1978; Cole and Gamble, 1979).

The work of Ostrom, Baugh, Guarasci, Parks, and Whitaker (1973) largely can be categorized as addressing the issue of control of the police, based on governmental structure. This research inquires as to the validity of arguments that the American system of having small police forces decentralized to the lowest level of government is more expensive than would be consolidated

police forces. Examining this issue, Ostrom and Parks (1971) show that the size of a given jurisdiction has a positive influence on expenditures for police service, but that the number of police jurisdictions per 100,000 residents (i.e., the number of agencies in a jurisdiction) has a negative effect on per capita expenditures. A similar finding was noted by Cole and Gamble (1979) in their study of 354 cities in Florida. These findings raise questions concerning the merits of arguments suggesting that cost savings will be achieved through consolidation of small, suburban police agencies.

This finding is carried forth by Ostrom, Baugh, Guarasci, Parks, and Whitaker (1973) in research on the form of government/community control and expenditures. Using a matched sample in the metropolitan area of Indianapolis, Ostrom and her colleagues tested the hypothesis that a larger proportion of police budgeted resources will be devoted to community services in smaller, locally controlled police agencies than in larger police agencies. They found a greater percentage of such resources were devoted to such services. This finding was supported by Ishak (1971) in his study of police agencies in the Grand Rapids, Michigan, area.

What does this finding suggest for police management? By and large, it gives credence to the thesis that larger, municipal agencies devote more of their resources to support services than do smaller agencies which may be more closely aligned to the community. In this example, community control can be viewed as proxy measure for organizational autonomy. Studies in the private sector by Pondy (1969) and Child (1973a) demonstrate that more autonomous organizations devote more of their resources to internal support and administrative functions than do those organizations with less amounts of autonomy. Perhaps these comparable findings suggest a general knowledge base which is applicable to all forms of organizations.

The literature also examines the relationships between types of government and expenditure levels. Generally, it has been found that city manager cities spend more for police services than other governmental forms (Wilson and Boland, 1978; Cole and Gamble, 1979). Little work has been identified, however, which takes the next step here--that is researching the variations in police effectiveness or performance in those cities having city manager forms of government as opposed to mayor/council forms. The work which has been conducted is exploratory in nature and utilizes different measures of performance.

The issue of citizen or client perceptions of the organization based on forms of governmental autonomy has been examined only by Ostom and her colleagues. In the study which demonstrated a negative relationship between number of police jurisdictions and per capita expenditures for police service, Ostrom and Parks (1971) also showed that there is no relationship between the number of police organizations in a jurisdiction and citizen perceptions of police service. Furthermore, Ostrom, Baugh, Guarasci, Parks, and Whitaker (1973) in a study of the metropolitan Indianapolis area, showed that citizens

in smaller jurisdictions had more favorable perceptions of police service and that these perceptions were based in part on a closer proximity to the police station and greater familiarity with the individual police officer.

In summary, what knowledge do these findings yield for students of police organization and management? Coupling the findings on expenditures with organizational autonomy, it may be that a theory is evolving here. That is, police organizations that are more autonomous (if it can be shown that police agencies in city management cities are more autonomous) have larger budgets, and that these larger budgets are used to fund larger support components. Smaller, and arguably more, "community controlled police agencies" spend less for such administrative support. A consolidation of smaller police agencies may move these now joined forces into agencies with larger support components that are consequently more expensive to fund. This pattern of relationships is depicted in Figure 4.

Figure 4

RELATIONSHIPS OF ORGANIZATIONAL AUTONOMY, SIZE OF
MUNICIPALITY, AND ADMINISTRATIVE SUPPORT COMPONENTS
AND EXPENDITURES TO POLICE SERVICE
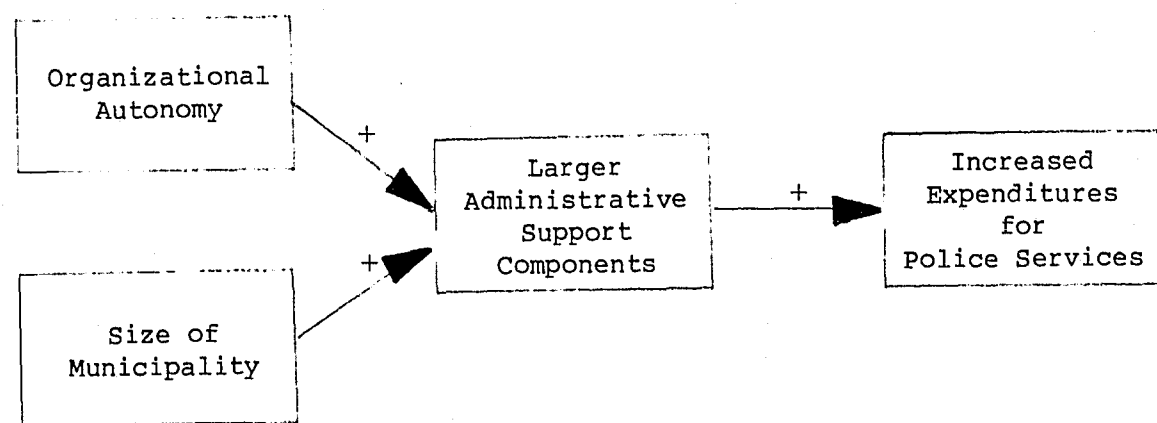


The issue of whether "community control" produces more positive perceptions cannot be totally answered within the sampled literature. This issue is made difficult to decipher because of the problems in defining "community control" and in segregating true measures of perceptions. Considering the earlier discussion on perceptions and how these vary by community according to socioeconomic characteristics and experience with the police, it seems quite premature to propose a finding indicating that greater control of the police will produce more positive community perception.

Interorganizational Relations in Local Government. In the general social science and management arena, the subject of interorganizational relations has been the subject of considerable empirical research and is a critical element in comparative analyses of organizations. In the context of policing, interorganizational relations can be translated as interagency relations, between and among police organizations, and between police organizations and other governmental agencies. The police literature, as sampled for this study, contained only a small number of studies addressing these topics. Further, it was clear from analyses of these subjects that very little is known about interorganizational relations in law enforcement.

In the general management literature, interorganizational relations has been referred to as "boundary spanning." Leifer and Delbecq (1978:40-41) define boundary spanners as "persons who operate at the periphery or boundary of an organization, performing organizationally relevant tasks which relate the organization to its environment." The literature sampled for this study provides a wealth of knowledge concerning the effects of boundary spanning activity.

It has been shown, for example, that organization size has a direct bearing on the amount of boundary spanning activity initiated by an organization (Edelstein and Ruppel, 1970; Baty, Evan, and Rothermel, 1971; Randall, 1973; Tushman, 1977). The study by Baty, Evan, and Rothermel (1971) also suggests that professionalism is positively related to boundary spanning. Further, the research conducted by Randall (1973) shows that geographic dispersion and the number of like organizations in the environment also increase boundary spanning activity. Finally, technological complexity is demonstrated to be positively related to boundary spanning by Edelstein and Ruppel (1970).

What do these findings suggest for police management? Unfortunately, little transformation can be made to the police discipline, because of differences in types of organizations in these general management studies. The police organization functions as a direct recipient and provider of community demands and services. Private organizations have different forms of organization based on alternative goal and task structures. Moreover, their interaction with other organizations in their environment is generally performed to enhance some organizational goal, usually maximizing profits. Police agencies have no similar incentive. Furthermore, the police, possibly more than any other component of the criminal justice system, control the inputs into the system. Because of this fact, police have traditionally felt little obligation or pressure to coordinate with other criminal justice and social welfare agencies.

Two studies were identified as providing information on boundary spanning activity in law enforcement. The study by Johnson (1977) showed that police officer esteem and friendship linkages (that is social cohesion) with personnel in other agencies were found to be significantly related to boundary

spanning activity. Morris-Doran (1980) found that officers in law enforcement agencies that established permanent boundary spanning positions did not refer significantly more individuals to a crisis intervention agency than officers in departments that did not establish these positions.

These studies provide some insight into the issue, but do not yield enough knowledge to develop a theory stipulating when boundary spanning activity is most likely to occur, what results are likely to be produced, and what management strategies are likely to promote increased boundary spanning. Further research is required to address many of these issues.

From a similar standpoint, very little research has been performed analyzing relations between police agencies. The only studies that could be identified in this study are exploratory in nature (University City Science Center, 1971; Baines, 1973) and these studies raise more questions than they answer concerning the reasons for, or for not, engaging in interagency coordinated activities. Thus, there is no real knowledge base which can be developed on this subject. Further research is needed on the effects of general interorganizational boundary spanning activity and the specific impacts of police officer boundary spanning activity.

An interesting piece of research in the general management literature provides a good point of departure for research in the police arena. It has been suggested that as organizations become more interdependent (or less autonomous from the view of the conceptual framework), they increase their coordination efforts with other organizations in the environment (Litwack and Hylton, 1962). However, this is a curvilinear relationship. There is a point when organizations reach a certain level of interdependence and that coordination activity is decreased. The question arises as to where police agencies fit in this scenario. Are they so interdependent that they do not place a value on coordination efforts with other agencies? This seems rather unlikely given the general lack of reliance of police agencies on other governmental organizations. The converse may be more applicable. Police organizations may not be interdependent at all, thus they do not perform a great deal of coordination efforts.

## The Influence of Environmental Factors in Police-Citizen Interactions

Of all the environment related topics on which a social scientist might focus, this one has received the most attention in the police literature sampled for this study. That seems a fortunate situation, for it is at the street-level encounter where discretion can be exercised by the officer and where the citizen forms his or her opinion of the police. In short, the street-level encounter lies at the heart of police-community relationships at large.

Westley (1953) was one of the first to address this topic. His specific concern was police use of violence in encounters with citizens. In his opinion, police use of violence was alternately tied to community expectations of the police. Where the community demanded high levels (sometimes unrealistically and unreasonably high levels) of law enforcement, the police would take whatever means necessary to achieve those goals, including the use of excessive force. Westley's work was admittedly general, but it spawned a number of more empirical efforts to examine many factors in the police-citizen encounter.

In line with developments in the literature, it is possible to divide the topic of police-citizen interactions into two more specific questions: how does the officer interact with the beat and how does the officer interact with specific individuals within it? Bittner's research (1967a) has addressed the former in the context of the police on skid row. His skid row police define their task as one of keeping the absolute level of "trouble" to a subjectively preordained maximum. They stop, interact with, and arrest subjects, not as much on the basis of past infractions as on that of the presence in the suspect of perceived character traits that may lead to trouble in the future. (The suspect may well be the victim, and not the perpetrator, of that trouble. In that the police perceive these people in situational, ahistorical terms, this fact poses no problems for them.) Bittner's police subjects define a norm for social behavior in their beats and then enforce both actual and likely conformity to it.

What of the specific encounter between the officer and the citizen? The research sample offers two leads which suggest knowledge bases on this topic. One set of articles sees police activity as response to proffered deference; another as response to citizen advocacy.

One stream in the literature describes the police-citizen encounter as a process of deference exchange in which the police officer acts not in conformity with community norms, but rather in conformity with the deference he or she has received from the citizen. Thus, a policy established norm, the expectation of deference from a citizen by virtue of the officer's status as a law enforcement officer, guides the officer's behavior. Where the expected deference is proffered, the officer will show more respect to the citizen and more likely comply with his or her wishes (Sykes and Clark, 1975); and will be less severe in enforcing the law against that citizen (Piliavin and Briar, 1964).

The second set of research studies views the police-citizen interchange from the perspective of citizen advocacy. Black and Reiss have examined this notion in their research conducted for the President's Commission on Law Enforcement and Administration of Justice (Black and Reiss, 1967) and in related studies (Black, 1970; Black and Reiss, 1970). Most calls for police service are citizen-initiated and most crime-related calls come

after a suspect has left the scene. In such situations, Black (1970) has discovered some distinctive patterns of report-writing (and hence of initiation of criminal justice system activities) by the police. As might have been expected, police are more likely to report serious than nonserious offenses. Within similar levels of seriousness, however, report-writing is influenced by complainant wishes. Those citizens who most ardently desire that incidents be reported (usually, those most distant socially from the offenders) will get their wishes. When complainant wishes are controlled, there is no evidence of race discrimination on the part of the police. Rather, what seems to occur is a two-step process. The police approach a serious situation as a more likely candidate for a report, but then let their actual behavior be determined by citizen requests. Black and Reiss (1970), studying the specific situation where juveniles are the suspects, find the same general patterns. Juveniles are more likely to be arrested for serious, as opposed to minor, infractions and, because they are more often involved in more serious matters, black juveniles are more likely to be arrested than white ones. The notion of citizen advocacy, however, intervenes at this point. The differences in these rates are not attributable to police discrimination, but rather to a desire for more strict enforcement by black complainants.

In both of these instances, the police enter a situation that is governed by social norms not of their own making. Citizen norms may well (and often do) vary from group to group, but whatever they are, they exert an effect on police behavior. The officer enters the scene and, within the predisposition established by the seriousness of the offense, operates as the servant of community dictates. Where the community wants enforcement, the officer is the enforcer. Where it wants leniency, the officer is lenient.

As of yet, it is not possible to precisely determine which of these theories is most pertinent in governing police-citizen interactions. What little evidence is available pitting these alternative explanations against each other is not conclusive. Black (1970) found a deference effect consistent with that discussed above, but Black and Reiss (1970) found deference making little difference. It is feasible, however, to suggest a marriage of these two perspectives to guide future research on this important topic. The existence of a status hierarchy from the police officer's perspective can be posited as discussed below.

In exchange for the expected amount of deference, the police officer offers rewards: compliance with a complainant's wishes, failure to arrest a juvenile for cause, failure to arrest an adult offender at all. This hierarchy purposefully suggests different levels of expected deference from different citizens. It is suspected that lower-status persons must show far more deference than higher-status ones (where both are present on the scene) to win their desired rewards. This expectation stems from the fact that complainants can invoke social norms beyond the immediate situation in defense

of their requests, whereas offenders can invoke only those of mercy (this is especially likely for juveniles). Thus, when the citizen-advocate shows some deference, the police are more likely to report the incident (Black, 1970). When the suspect shows deference and no complainant is present, the police are less likely to arrest (Piliavin and Briar, 1964; Bittner, 1967a; Skyes and Clark, 1975). Where both complainant and suspect are present, the amount of actual deference calibrated against the amount expected from each party will determine the winner of the police reward.

Whether this particular theory is adopted or not, the topic is well worth pursuing. Both of these issues speak to the central topic of police discretion. Understanding the environmental dynamics in which discretion is exercised would help management to understand the quality and quantity of justice dispensed by the criminal justice system. Moreover, further research on this subject would aid police management in developing viable means of structuring police discretion.[14]

### Summary and Conclusions

This chapter has examined a considerable body of research in police science and administration and other disciplines addressing the relationships between the organization and its environment. Those studies selected and reviewed in the police sample, for the most part, employed either exploratory or case study research designs and generally assessed the impact of some feature of environment on police organization and management, or on individual officers. This is especially true for those studies addressing the effects of general environmental characteristics, or structured environmental-organizational interactions on the police organization.

An exception to this observation can be made for those studies investigating patterns of police expenditures. Researchers examining such patterns frequently selected research designs which ascertained what variables were related to expenditures for police service. These studies often relied on multivariate statistical techniques. This was not the case for studies researching the effects of general environmental factors (e.g., sociodemographic characteristics) or particular police-environmental interactions. Such studies in many instances (excpecially those studies that used a case study approach) resorted to qualitative or univariate analyses.

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[14]/Further information on the subject of police managerial control of discretion is presented in Chapter V: Organizational Coordination and Control.

The studies selected from general management and social science disciplines addressed three primary topics: boundary spanning activity (interorganizational relations), environmental uncertainty, and organizational autonomy. Specific influences of each of these subjects to organization and management were identified. In most cases, these influences were found to be applicable to police organization and administration.

The sampled police literature provides a knowledge base concerning the influence of culture on police organization and management. A review of comparative analyses of police organizations suggests that police in America are decentralized to the local level (city or county) because of cultural influences regarding the patterns of development of American society: local governments have evolved from essentially "private needs." This pattern of development, has to a certain degree, placed restraints on police organizational adaptation to broader community needs. These studies also indicate that it may be difficult to consolidate police agencies without a similar consolidation of broader governmental structures. Cultural influences are also shown to influence the role of police in society. The police are required to strike a balance between order maintenance and the guarantee of individual rights. This role causes the police to be viewed as symbols of authority in the community and limits the amount of support provided by the community to the police.

The selected police literature contains several studies addressing the influence of environmental characteristics on citizen perceptions of the police and on police perceptions of the community. Such studies demonstrate that the sociodemographic status of the citizen affects perceptions of the police; experience as a victim of crime is not shown to be as influential to perceptions. Socioeconomic characteristics of the citizenry have also been shown to influence police perceptions of the community.

Crime rates have been described as determinants of expenditures for police. Research shows, however, that income levels in the community are equally important determinants and that socioeconomic characteristics and community composition characteristics are correlates of both crime rates and income levels within the local community.

This research has also shown that perceptions of changes in the local environment give rise to uncertainty within the organization and this affects police perceptions of their job. The general management literature includes several treatments of this topic (environmental uncertainty) and demonstrates that such uncertainty is associated with flexible, less hierarchical organization structures, greater decentralization in decision-making, and concurrent organizational adaptation to environmentally induced changes.

This research review has also shown that larger police agencies may, in fact, spend proportionately greater amounts of tax dollars for police

services. This may be due to the increase in administrative and managerial support services associated with larger agencies. The sampled police studies also indicate that cities with city manager forms of government spend more for Police services than cities with other governmental structures. These findings parallel observations in the general management sample that more autonomous organizations spend more resources for internal support functions.

A considerable number of sampled studies in the general management literature addressed the topic of interorganizational relations. This subject has received only minor attention in the police literature. A transfer of knowledge from the general management literature to the police environment is not possible.

The sampled police literature contains a substantial number of studies which analyze the police-citizen interaction. Two theories have evolved describing this relationship: the notion of deference exchange and the citizen advocacy theory. Little research has been initiated to reconcile differences between these two notions. Both theories, however, provide explanations as to how the police-citizen interaction affects police officer discretion.

The research reviewed in this chapter raises several issues which can only be reconciled through further research. Among the topics which should be researched further are the following:

- The notion that police are viewed as symbols of authority should be examined further with analyses of socioeconomic characteristics included as companion variable to community culture. Such research would yield further insight into the issue of community support of the police.

- Further research is needed to determine the relative influence of community socioeconomic characteristics on police perceptions of the community. This research should include multivariate analyses of police experience and peer influence, as well as socioeconomic factors, on police perceptions.

- Additional research analyzing the effects of fluctuations in the crime rate on police organization and management decision-making are needed to explain further the relationship of crime to the organization. The value of this research would be enhanced by analyses of changes in police organization achievement as stemming from changes resulting from variations in crime.

- The concept of "environmental uncertainty" should be examined further in police organizations to determine to what extent findings in other organizational disciplines may be comparable to policing.

- Further research is needed on the relationship of government structure to police organization and management. This research could explore the premise that increased autonomy and size may be associated with a larger administrative support component. The outcome of such structural differences and expenditure patterns should also be investigated.

- The notion of "boundary spanning" should be examined further in policing. This research should explore the degree of police agency interdependence from other governmental units or from other police agencies.

- Additional research is needed to investigate further the two concepts posed herein as determinants of police actions toward citizens: the theory of deference exchange and the theory of citizen advocacy. Such research should simultaneously analyze both theories in order to deduce a reconciliation between these theories.

## III. COMPLEXITY OF GOAL AND TASK STRUCTURE

### Introduction

The second conceptual cluster incorporates seven unique variables which focus on organizational mechanisms and responses to environmental influences. The variables in this cluster define how an organization specifically responds to its environment from methods of formalizing goals and objectives to accomplish its set purpose or mission to variations in methods of establishing the formal organization and its structure. These variables then begin to illustrate how management at the conceptual level responds to environmental influences and sets in place a structure, although rather generally defined at this point, to carry out organizational tasks and activities. The precise mechanisms for structuring work unit or individual tasks and activities, or for instituting procedures and systems to ensure that work tasks and activities are performed according to management intentions, are not included within this cluster. These management responses are by necessity dealt with at a later point. Initially, management must articulate what the organization's mission is, how this mission is to be achieved, and how the organization is to be organized to achieve these desired ends.

Efforts to define the complexity of the organizational task structure should begin with analyses of the different types of objectives, as well as the number of objectives established either formally or informally by the organization. This analysis must assess variations in the number of products or services delivered by the organization, as well as the number of markets in which these products or services are delivered. A considerable diversity in either the number of products or services or the markets serviced can produce diversity in the organizational task structure. Industrial conglomerates, for example, may manufacture a variety of products for two or three different markets. The organizational structure of such a conglomerate is necessarily complex. Conversely, smaller manufacturing organizations producing a single product for one market will not have complex organizational goal or task structures.

Police organizations by design deliver a diversity of services to their clientele. These services range from specific crime prevention and criminal apprehension tasks, such as investigating homicides or informing citizens' groups of proper security measures for burglary prevention, to general social service and community control tasks. It is these service tasks which are diverse in themselves and consume a substantial portion of the typical patrol officer's available tour of duty. Research has shown that approximately one-half of the calls-for-service made to the police are service calls which require police assistance in personal and interpersonal matters (Cumming, Cumming, and Edell, 1965). Moreover, a large majority of these calls-for-service do not provide an opportunity to invoke the criminal law as

a means of resolving a disturbance or a social problem (Wilson, 1968; Bercal, 1970; Reiss, 1971).

These observations have raised several direct questions about what the police do with their time. The answer seems to be that for a substantial amount of their typical police tour of duty they provide services, such as controlling crowds at a parade or a demonstration, giving directions to strangers in a community, transporting alcoholics to detoxification centers, searching for missing children, responding to parking complaints, and dealing with municipal service defects which may pose a threat to the public safety.

These services are delivered in concert with crime prevention and apprehension functions in an unpredictable manner by patrol officers and then by the larger organization. The police use existing support mechanisms and specialized units or individual officers to supplement the initial patrol response. The precise response and utilization of these mechanisms and services varies by the incident. Recognizing that these functions and responsibilities are diverse, unpredictable, and "situational," Bittner (1967a:40) posits that the police use their capacity and authority to intervene to control incidents and events to which they respond.

It is clear then that the police function is complex and that the range of police responsibilities is extraordinarily broad, encompassing a wide variety of regulatory, social, and criminal enforcement situations. The breadth in dimensions of police activity and the situational nature of the police response has led one prominent scholar to conclude that: "Anyone attempting to construct a workable definition of the police role will typically come away with old images shattered and with a new found appreciation for the intricacies of police work" (Goldstein, 1977:21).

What implications for management does this knowledge suggest, how does the police organization respond to the myriad demands placed upon it, and how does management structure the police organization to best respond? These are all questions which are asked in this chapter examining complexity of goal and task structure. The seven unique variables in this cluster each address specific issues which, if they can be fully addressed, will help answer these and additional questions. The comparison of the police literature to the general social science literature will provide further insight regarding these questions. Research in other disciplines will be analyzed to distinguish where parallels may be drawn to the police organization to help derive a better understanding of the organization's and hence management's response.

## Descriptive Findings

A total of 17 research studies on police organizations were identified, retrieved, and examined for this conceptual cluster. This sample was augmented by 33 studies in the non-police disciplines to help deduce a

knowledge base regarding the police goal and task structure.[15] This is admittedly a small sample, particularly in the police discipline. The size of the police sample may result from an apparent lack of interest and emphasis on the variables in this cluster by researchers in police science and administration.

This section includes descriptive findings based on reviews and analyses of these studies. Included in this section are descriptions of the number and type of studies by individual variable within the cluster, the types of research designs employed, the methods of analysis used in sampled studies, and an itemized summary of unique findings by specific variable.

### Number of Studies by Specific Variables

Seven distinctive variables are incorporated in this conceptual cluster. These are: (1) Diversity of Objectives; (2) Number of Objectives; (3) Geographic Dispersion; (4) Variability of Tasks; (5) Organizational Size: Members; (6) Organizational Size: Resources; and (7) Organizational Size: Clientele. Definitions for these variables are included in Chapter I. These variables and the studies reviewed were explicit enough in definition that no further breakdown of the variables into sub-variables was required.

Three specific variables on organizational size were developed at the outset of this project to permit a comprehensive treatment of all issues concerning size of the organization. It was anticipated that selected studies examining size of organization would further separate size as a measure into one of three operational categories: members, resources, and clientele. This was not the case for the sampled studies. Numerous authors operationalized size as the number of employees in the organization, or the size of the clientele served by the organization. None, however, researched organization size by focusing on the amount of resources available. Resources in this instance include materials, equipment, facilities, or other non-personnel resources. This is not to say that no studies are available which research this dimension of size. The lack of studies in this sample does indicate,

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[15] This knowledge base is not intended as a synthesis of empirical research incorporating findings from all management studies. Rather, it is based on the sample used for this study which can be said to provide an indication of the state of the art in police management with a secondary comparison to a small sample of the general management literature.

nevertheless, that this measure of size is not used frequently, particularly in the police literature.

Table 8 depicts the number of studies examined by specific variable within the conceptual cluster for both the police and the non-police samples. It should be noted that some studies examined more than one variable. Therefore, the totals in this table will equal more than the total number of studies reviewed for the conceptual cluster.

Table 8

NUMBER OF STUDIES REVIEWED BY SPECIFIC VARIABLE

(Conceptual Cluster II)

| Variable Number | Name | Police | Non-Police |
|---|---|---|---|
| 6 | Diversity of Objectives | 4 | 3 |
| 7 | Number of Objectives | 0 | 1 |
| 8 | Geographic Dispersion | 0 | 3 |
| 9 | Variability of Tasks | 3 | 11 |
| 10 | Organizational Size: Members | 7 | 24 |
| 11 | Organizational Size: Resources | 0 | 0 |
| 12 | Organizational Size: Clientele | 3 | 1 |

As this table depicts, organizational size: members (variable 10) was the primary subject researched in the sampled studies. This was true for both the police and the non-police samples. Researchers have examined this variable largely as an independent variable analyzing the relationship between organization size and other management and administrative variables.

It should be noted that five of the studies on organization size: members in the police sample were originated by one group of researchers. The works of Elinor Ostrom and her colleagues represent the major research efforts in this field. These works have spawned an interest in the issue of size of police agencies. This interest, in part, resulted in the publication of studies by other researchers.

The topic of organization size: members has been addressed quite extensively in the non-police disciplines. Scholars and researchers have analyzed the relationships of size of the organization to other managerial issues in many environmental settings. This research has enabled such researchers to develop a theoretical base complete with testable propositions concerning this organizational variable.

The subject of variability of tasks is one which is also analyzed extensively in the non-police literature and is addressed, to a lesser extent, in the police sample. Researchers have inquired as to the relationships between task characteristics and work arrangements at the level of the individual worker. Specifically, they have focused on selected types of tasks and assessed the relationship between levels of variability in work performed by the individual and specific structural characteristics within the organization (e.g., mechanisms of control and coordination and degrees of formalization of rules and procedures).

The two variables focusing on organizational goals and objectives were not analyzed extensively in the literature sampled for this study. Those studies which do discuss and analyze objectives in selected studies appear to research the subject of objectives almost secondarily. Much of the police literature, for example, analyzes the "style" of police organizations and in so doing addresses the type and number of objectives of the police service. The primary emphasis, however, is not on the objectives of the police function and how these are developed, or how they impact the organization, its structure, systems, and personnel.

Research Designs

The second form of descriptive analysis was a determination of the types of research designs utilized. The research staff classified each study as fitting one of four design types: exploratory, case study, quasi-experimental, or experimental. Secondarily, the studies were reviewed to ascertain whether the target variables were treated as dependent or independent variables within the selected design.

Research Design Types. Table 9 portrays the results of this analysis. As was the case with the studies analyzed for the first conceptual cluster (Environment and Organization Autonomy), the research on complexity of goal and task structure predominantly employed exploratory or case study research designs. This was the case for both the police and the non-police samples. This finding is most likely due to the recent emergence of police administration as a social science discipline and to the nature of the variable themselves. Many of the variables in this cluster focus on subjects which are difficult at best to measure. It would require a complex research methodology, for example, to apply an experimental design to a study of changes produced by the re-prioritization of objectives by management.

Table 9

TYPES OF DESIGNS FOR SAMPLED STUDIES

| | Police | | Non-Police | |
|---|---|---|---|---|
| Types of Designs | N | % | N | % |
| • Exploratory | 9 | 53 | 28 | 85 |
| • Case Study | 8 | 47 | 5 | 15 |
| • Quasi-Experimental | 0 | 0 | 0 | 0 |
| • Experimental | 0 | 0 | 0 | 0 |
| | 17 | 100% | 33 | 100% |

The review of studies in this conceptual cluster, when coupled with the findings from Chapter II (Environment and Organizational Autonomy), provide two observations concerning police research studies. First, when viewed in the context of the entire conceptual framework, it is clear that police management research to date, as sampled for this study, has concentrated on tangible, internal managerial subjects (e.g., recruitment practices, training systems, and use of police discretion) and less on conceptual organizational issues. This trend, although certainly understandable given the push to learn more about policy-relevant internal management issues in policing, provides very little in the way of a data base for researchers to work from. Thus, existing research is likely to be exploratory in design. Secondly, the variables in the first two clusters are for the most part conceptual in that they deal with patterns and means of organizational adaptation to the environment and specification of management policy in structuring the organization. These issues do not easily lend themselves to quasi-experimental or experimental treatment.

There are exceptions to this latter point for the topics in the second conceptual cluster. The subject of variability of tasks could be subjected to sophisticated research analysis because it pertains to a subject under management control--that of the tasks and responsibilities of individual workers. Additionally, the variable on geographic dispersion, although more difficult to control in research projects, could be analyzed through a more complex research design. Management could evaluate the effects of instituting decentralized work stations (e.g., police precincts) through such a research

decentralized work stations (e.g., police precincts) through such a research design.[16]

*Treatment of Variables in Research Designs.* Sampled studies were also reviewed to determine the treatment of variables--whether dependent or independent. Table 10 presents the results of this analysis. As these data indicate, the variables in this cluster have, with minor exceptions, been studied as independent variables. The obvious implication is that available research, at least as sampled for this study, has assessed how the conceptual level variables in this cluster affect some other managerial dimension. This finding suggests that little knowledge will be available delineating how organizational dimensions such as size, geographical dispersion, and number and diversity of objectives are affected by other factors originating from the environment or from within the organization.

Table 10

TREATMENT OF VARIABLES IN RESEARCH DESIGNS

| Variable Number | Name | Police | | Non-Police | |
|---|---|---|---|---|---|
| | | Independent | Dependent | Independent | Dependent |
| 6 | Diversity of Objectives | 3 | 2 | 4 | 0 |
| 7 | Number of Objectives | 0 | 0 | 1 | 0 |
| 8 | Geographical Dispersion | 0 | 0 | 4 | 0 |
| 9 | Variability of Tasks | 3 | 0 | 7 | 0 |
| 10 | Organizational Size: Members | 7 | 1 | 25 | 1 |
| 11 | Organizational Size: Resources | 0 | 0 | 0 | 0 |
| 12 | Organizational Size: Clientele | 3 | 0 | 2 | 0 |
| | Other Variables in Conceptual Framework | 2 | 12 | 1 | 17 |

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[16] There is a significant body of research which examines the effects of decentralization in police organizations from the persepctive of specific programs, such as team policing programs. These studies, however, do not directly analyze the question of geographical dispersion. Thus, it is difficult to derive a knowledge base on this topic from such studies. Further discussions on the issue of decentralization are incorporated in Chapter V: Organizational Coordination and Control.

At first glance this finding appears quite logical. The conceptual nature of goal and task structure variables, as alluded to earlier, do not lend themselves to treatment as outcomes in themselves. On the contrary, they are existing conditions which are examined to determine how they will affect other organizational and administrative variables. This may certainly be logical, but it does not produce a knowledge base concerning the ultimate results of altering the goal and task structure of organizations. It will be difficult then to answer questions such as the following because of this situation: how do changes in the fiscal environment of the organization affect the goals and objectives of organizations, how do environmental relations variables, whether concerned with direct client or consumer interaction or with interorganizational actions, affect the goal and task structure of the organization, and how does the informal organization affect the goal and task structure? These and many other similar questions cannot be answered with the sample selected for this study.

## Methods of Analysis

A key step in the descriptive analysis was the specification of what forms of analysis were used in sampled studies. The form of analysis used in a research study determines in part the type of conclusion which can be developed from that study. Project staff coded each study and selected one of four possible levels of analysis: qualitative, univariate, bivariate, and multivariate.

The results of this analysis are presented in Table 11. These data indicate that police studies selected in this cluster utilized a variety of forms of analysis, whereas the non-police literature can be said to have used predominately bivariate or multivariate analytical designs. As was the case with the first conceptual cluster, this result occurred primarily because the Administrative Science Quarterly was used as a target journal in the general social science arena. This journal by design tends to publish studies with advanced analytical techniques.

Table 11

METHODS OF ANALYSIS FOR SELECTED STUDIES

| Methods of Analysis | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Qualitative | 5 | 31 | 1 | 3 |
| ● Univariate | 1 | 2 | 2 | 6 |
| ● Bivariate | 5 | 31 | 14 | 42 |
| ● Multivariate | 6 | 36 | 16 | 49 |
| | 17 | 100% | 33 | 100% |

There is no obvious pattern that appears when analyzing levels of treatment by specific variables. The studies which applied multivariate methods in the police sample, for example, were evenly distributed across the variables in this cluster. The same can be said for the non-police sample. The largest clustering of multivariate studies in this sample was located in the sub-group of studies which examined the variable organizational size: members. This is not surprising, however, since the largest number of studies in the non-police sample addressed this variable.

## Presentation of Descriptive Findings Produced by Sampled Research Studies

The sampled research studies were analyzed to determine patterns of relationships among variables in this cluster and between these variables and those in other clusters. This process was performed to deduce a descriptive cataloging of findings. These findings are presented in Exhibit B entitled, "Synthesis of Descriptive Findings: Complexity of Goal and Task Structure" These findings, as was the case for descriptive findings in Chapter II, are descriptive and therefore do not necessarily produce a knowledge base. This level of findings is presented and discussed in the section of this chapter entitled, "Inferential Findings."

Exhibit B

SYNTHESIS OF DESCRIPTIVE FINDINGS:
COMPLEXITY OF GOAL AND TASK STRUCTURE

| Police Studies | Non-Police Studies |
|---|---|
| 6. Diversity of Objectives | 6. Diversity of Objectives |
| • Suggestion that diversity of objectives has a positive correlation with departmental specialization and with hierarchical structures within the police agency. | • Indication of a positive relationship between how diversified the organization's objectives are and the effectiveness of a managing by objectives program in private industry. |
| • Some indication that there may be a positive linkage between diversification of objectives in the police agency and degrees of employee coordination/control, employee satisfaction, and public support. | • Preliminary evidence that diversity of objectives correlates positively with inter-organizational relationships (boundary spanning activity). |
| | • Indication that diversity of objectives is not correlated with degrees of functional specialization in organizations. |
| 7. Number of Objectives | 7. Number of Objectives |
| • No studies were located on this topic. | • Indication that there is no relationship between the number of objectives in an organization and the effectiveness of a managing by objectives program. |

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Exhibit B (continued)

| Police Studies | Non-Police Studies |
|---|---|

**8. Geographical Dispersion**

- No studies were located on this topic.

**8. Geographical Dispersion**

- Preliminary indication that geographical dispersion is correlated positively with several organizational coordination and control variables (i.e., formalization/written rules, centralization of authority in decision-making).

- Evidence of a positive relationship between geographical dispersion and amount of referrals by one organization to another, specifically, referrals to local governmental agencies in the community.

- Indication of a positive relationship between degrees of geographical dispersion and span of control--organizations tended to employ a larger span of control in geographically dispersed agencies.

**9. Variability of Tasks**

- Indication of a positive relationship between variability of tasks and organizational commitment on the part of employees.

- Variability of tasks also appears to be positively correlated with employee job

**9. Variability of Tasks**

- Sampled literature discloses a conflict regarding the relationship of variability of tasks to employee satisfaction. Certain studies indicate a positive correlation while others report a negative relationship.

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| Police Studies | Non-Police Studies |
| --- | --- |

satisfaction while also being positively associated with negative perceptions of the police toward those elements of the community with whom they interact.

- The sampled literature reveals a positive linkage between variability of tasks and centralization of decision-making authority; span of control ratios (i.e., larger span of control ratios where there is a greater degree of task variability) and skill structure/professionalism.

- There is an indication that variability of tasks is negatively related to supervisory coordination/control mechanisms and to efforts to monitor discretion by police officers.

- Indication that variability of tasks is correlated negatively with functional specialization and formalization/written rules.

10. Organizational Size: Members

10. Organizational Size: Members

- Several studies have been conducted which investigated the relationship between size (members) and organizational effectiveness as measured by citizen perceptions. Three studies found a negative relationship; one found no relationship.

- Research shows that there is a positive relationship between organizational size and functional specialization, formalization/ written rules, administrative staff, support levels, centralization of authority, and employee coordination/control mechanisms.

- Indication of a positive relationship between size of the organization (members) and police expenditures per capita and per capita tax base.

- There is an indication that size is correlated negatively with satisfaction and commitment on the part of employees, as well as social cohesion. Size of the organization appears also to be negatively correlated with span of control and skill structure/ professionalism.

- Indication that size of the organization is positively related to amounts of training for police and has no correlation with amounts of education for officers in police organizations.

- Size of the organization appears to be positively associated with public support

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Exhibit B (continued)

| Police Studies | Non-Police Studies |
|---|---|
| • Evidence that size of the organization has a negative relationship to acceptance of lateral entry as a recruitment device in policing. This negative relationship is strongest for medium to large agencies, decreases as size increases (i.e., for the largest agencies), and is negligible in smaller agencies. | (from the standpoint of perceptions of quality governmental services) when controlling for citizen income levels and proximity to the governmental agency. |
| | • Evidence that size of the organization is negatively correlated with organizational effectiveness and efficiency. |
| | • The literature contains conflicting findings regarding the relationship between organizational size and interorganizational coordination. One study suggests that larger organizations engage in greater degrees of boundary spanning activity, while another finds a negative relationship between size and initiation of referrals to other organizations. |
| | • Four authors investigated the relationship between size and hierarchical levels. Two found a positive relationship, one found no relationship, and one found an inverse relationship. |
| 11. Organizational Size: Resources | 11. Organizational Size: Resources |
| • No studies were located on this topic. | • No studies were located on this topic. |

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| Police Studies | Non-Police Studies |
|---|---|
| 12. Organizational Size:  Clientele | 12. Organizational Size:  Clientele |
| • Several articles examined the relationship between size of clientele (population) and the amount of police expenditures. Indication is that there is a discrepancy in the findings.  One article found a positive relationship between size of clientele and expenditure for small departments, no relation for medium-sized departments, and a negative relationship between large departments and police expenditures.  A second article found the variables were negatively correlated and a third study reported a positive correlation. | • Research shows that fire service agencies serving larger populations are more effective in suppressing fires and enjoy more positive perceptions by their citizenry than those in small jurisdictions. |
| • Indication that size of clientele (population) is correlated negatively to organizational effectiveness. | |

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## Inferential Findings

The second form of analysis for this conceptual cluster was an inferential analysis through which the sampled literature was scrutinized to derive a knowledge base regarding goal and task structure within police organizations. This knowledge base contains findings concerning knowledge base strengths and knowledge base weaknesses. The relative value to the state of the art of various findings is assessed in these discussions.

The sampled literature provided specific, detailed knowledge concerning certain aspects of organizational goal and task structure. It should be reiterated here that knowledge in this context was derived from research that was deemed to be generalizable--that is employed sound methodological procedures and generated findings that could be transferred from one organizational and administrative setting to another. Such findings are not limited to a particular discipline of study, such as police organizations or any other type of organization, and thus yield findings on management and administration that are organizationally independent. The knowledge base strengths and weaknesses for this conceptual cluster can be grouped into four subject areas:

1. Goals and Objectives and Police Organization and Management.

2. Geographical Dispersion of Work Units within the Police Organization.

3. Task Variability and Police Organization and Administration.

4. The Relationship of Size of the Police Organization to Management and Administration.

## Goals and Objectives and Police Organization and Management

There is a general consensus among scholars and practitioners alike that the police mission is broad in scope and the services delivered are quite diverse. This realization is usually manifested in the articulation of necessarily broad police goals and objectives. Goal statements can be found in the annual reports and/or policy manuals of most police organizations. These goals frequently are enumerated in a general sense as law enforcement and order maintenance. These two goals are often expanded in many discussions of police management and organization. Some authors have stated that a third goal of the police function is providing general government services to the community (see for example, Whisenand and Ferguson, 1978:121). This addition was based on the reality, as demonstrated from empirical research, that a

large portion of the police function is devoted to such services (Bercal, 1970). Others have elaborated on these goals and produced a more specific mission for the police. Bale and Eastman (1969:3), for example, list six goals of the police as: (1) prevention of criminalty; (2) repression of crime; (3) apprehension of offenders; (4) recovery of property; (5) regulation of non-criminal conduct; and (6) performance of miscellaneous service. Still others have produced detailed lists of objectives for the police function. The American Bar Association Project to develop standards for the urban police function produced one such list (American Bar Association, 1973:39-42) which was somewhat altered by Goldstein (1977:35) to read as follows:

1. To prevent and control conduct widely recognized as threatening to life and property (serious crime).

2. To aid individuals who are in danger of physical harm, such as the victim of a criminal attack.

3. To protect constitutional guarantees, such as the right of free speech and assembly.

4. To facilitate the movement of people and vehicles.

5. To assist those who cannot care for themselves: the intoxicated, the addicted, the mentally ill, the physically disabled, the old, and the young.

6. To resolve conflict, whether it be between individuals, groups of individuals, or individuals and their government.

7. To identify problems that have the potential for becoming more serious problems for the individual citizen, for the police, or for government.

8. To create and maintain a feeling of security in the community.

These goals and objectives in the police organization, like other organizations, serve several purposes. Etzioni (1964:5) examines the utilization of goals for management and asserts that goals serve four purposes. They: (1) provide a blueprint for the future state of affairs of the organization, thus setting guidelines for managerial and administrative activity; (2) constitute a source of legitimacy which justifies the activities of the organization; (3) serve as standards through which managers, workers, and outsiders can judge the success of the organization; and (4) provide a means of measuring the organization for the student of management and administration. Goal and objective statements are included in police policy manuals for these precise reasons.

Because goals and objectives play such a critical role in the organization, it is important to assess their effects on the management system and structure of the organization and, conversely, the impacts of these factors on goals and objectives.[17] This includes examining the relationship between environmental influences on goals and objectives in assessing how they are set, modified, eliminated, or added to, ascertaining the role(s) of individuals and groups in goal setting, determining what impact goals and objectives have on organizational structure considerations, and analyzing how goals and objectives are evaluated. In so doing, it is important to analyze goals and objectives from two perspectives: (1) how diverse they are and (2) how many goals and objectives are established by the organization and how management prioritizes its goals and objectives.

What can be learned from the literature on police goals and objectives regarding these subjects? The police literature, for the most part, provides primarily qualitative data from which the above analytical inquiries can be addressed. The available literature is entirely exploratory in design and utilizes qualitative measurement techniques. Ferdinand's (1976) study of the Rockford, Illinois Police Department is a good example of the research on this topic. Ferdinand examines changes in organizational style from 1878-1970 through a historic, case study approach. He shows that changes in the community, largely in the form of greater urbanization and increased crime, fostered a shift in the enforcement style from a service orientation to a legalistic style. This emphasis on organizational style appears throughout the police literature. James Q. Wilson (1968) provided perhaps the first treatment of style in his book on law enforcement in eight communities. His research has spurred other examinations of style.

Organizational style can be loosely defined as the "defining characteristic of the (police) patrolman's role" as reinforced by the attitudes and policies of the police administrator (Wilson, 1968:140). Organizational style is shaped through cultural, community interest group, and political influences as well as through the individual priorities and "style" of the police administrator and of all officers within the department. The values and attitudes of police department managers, supervisors, and individual workers play a critical role in shaping style because of the diversity of police objectives and the amount of discretion inherent in the police function. Wilson (1968) allocates a considerable portion of his text to the role of the patrol officer in shaping organizational style. Similar examinations of the patrol officer's role are provided by Chwast (1965) and Skolnick (1966).

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[17] The diversity of police goals and objectives also affects the role perception and attitudes of the individual officer. An analysis of these effects is included in Chapter VI: Informal Organizational Structures.

Organizational style in many respects helps define the "operative goals" of the organization. All organizations have both official and operative goals (Perrow, 1961b:855). Official goals are those goals that define the general purpose of the organization, while operative goals define the specific content of official goals and "reflect choices among competing values" (Perrow, 1961b:855). In this sense, operative goals become ends in themselves because they indicate relative priority among diverse and somewhat conflicting organizational or "official" goals. Style then becomes a way of defining these "operative" goals and observing how all goals are prioritized in the police function.

Wilson (1968) discusses the dimensions of style and demonstrates why style becomes such an important factor in police organization and management. Acknowledging that the police mission is broad and the objectives diverse, with the police often called upon to enforce laws which are often ambiguous, and control order in a variety of socially conflicting situations, he states that police organizations develop an enforcement style which in essence prioritizes the objectives they wish to address. Style is manifested through the policy statements, rules, regulations, training systems, and internal management communication channels of the organization. The police chief executive, in taking cues from the political and community culture in which the organization resides, then sets the atmosphere for the particular style of the organization. If, for example, it is deemed important for the police organization to do something about crime, the police chief administrator will invariably set in action changes which are intended to put more officers on the street or to initiate proactive, highly visible enforcement programs to assuage community opinion that crime is on the upswing and something must be done to control it. The police organization which adopts such a style moves to what Wilson terms a "legalistic style." The police chief administrator will take whatever steps possible to induce patrol officers to take a law enforcement view of their role (Wilson, 1968:172). This includes issuing policy statements, redeploying officers to better address crime problems, and reinforcing "appropriate" police behavior through both positive and negative disciplinary actions.[18]

In addition to the legalistic style, Wilson (1968) suggests that police agencies can also exhibit a "watchman" or a "service" style.[18] These styles emphasize alternative objectives within the police mission respectively maintaining order within the community and providing governmental services to citizens. Again, the police chief administrator sets the tone for defining these forms of organizational style through policies, procedures, organizational structural considerations, and management communication and decisions.

[18]Definitions for each of these forms of organizational styles can be found in Wilson's text (see Wilson, 1968:140, 200).

What are the organization and management ramifications of a police organizational style? Wilson (1968) provides some information on this question in his qualitative analysis of organizational characteristics in the eight departments studied. He notes that agencies embodying a legalistic style tend to place a high value on efficiency, tend to incorporate more formalized written directive systems, institute greater amounts of training for patrol officers, tend to formalize a greater number of specialized functional units, pay higher salaries, provide greater incentives for continuing education, and employ more technology in their internal managerial and operational systems. These findings are supported by those of Reppetto (1976) showing that a shift to a legalistic style is often accompanied by high levels of specialization and many hierarchical levels.

Watchman style agencies, on the other hand, can be characterized as being on the opposite extreme on many of these organizational dimensions. In fact, it can be said that where a legalistic style agency was high on a particular dimension, a watchman style agency was low. This occurs, in part, because the foremost objective in watchman style agencies is maintaining order. Order maintenance is carried out by situationally relevant and variable judgements on the part of the individual officer. Management in such agencies has a different role to play. Rather than guiding, motivating, and controlling police patrolman behavior, managers tend to react to situations as they become aware of them and take whatever action is appropriate to achieve control. Thus, there is less emphasis on managerial control mechanisms such as rules and directives, as well as a corresponding low emphasis on management systems designed to improve the professionalism of police patrol officers (e.g., training, pay incentives, and educational incentives).

Wilson's (1968) findings are augmented by Reppetto (1975) where he attempts to compare the relationship between organizational style and crime control. Reppetto (1975:274-275) redefines Wilson's legalistic style to a "professional" style and the watchman style to a "traditional" style. These definitions were derived to characterize crime enforcement patterns. Professional departments were treated as those which employed "professional" management and organizational systems to control crime.[19] Reppetto found significant differences in the two groups of agencies in leadership, organization, personnel, and methods employed. Further, he observed that the costs for police service in the "progressive" cities were less than those in the "traditional" cities (Reppetto, 1975:278). In assessing the results of

[19]Professional management and organizational systems are termed by Reppetto and others as managerial practices designed to maximize accountability and performance. Such practices are prescribed by many noted police authors. See, for example, O. W. Wilson and Roy C. McLaren, Police Administration, 4th ed., (New York: McGraw-Hill, 1972); John P. Kenny, Police Administration, (Springfield, Ill.: Charles C. Thomas, 1972); and George D. Eastman and Esther Eastman, (eds.) Municipal Police Administration, (Washington, D.C.: International City Management Association, 1971).

these differences, he found that agencies in the "professional" sample exhibited a high arrest rate for auto thefts and had a much smaller rate of auto thefts to begin with, processed substantially more traffic arrests, and apprehended many more juveniles than those agencies termed "traditional." Reppetto (1975:278) concludes that the high arrest rates "stemmed directly from the stress placed on minor offenses, aggressive patrol, and the general production orientation of the professional police force." In contrast, the traditional agencies processed a much higher number of drunk and disorderly arrests than progressive agencies. He notes that this last finding demonstrates the emphasis on "order maintenance or on keeping the beat clean" in these cities (Repetto, 1975:278).

What can be deduced from these analyses? First, it can be concluded that style in many ways characterizes the police organization's "operative" or primary objectives. While the police are called upon to carry out a multitude of activities, they will, through organizational and management decision making, adopt priorities among these goals and objectives. This does not mean that other police responsibilities will not be carried out, but that they will not be conducted with the same amount of zeal, and will not be backed by the same degree of organizational and management support.

It appears then that the literature, although limited, provides the beginnings of a model for analyzing organizational style and assessing its influence on management and administration. In this model, the legalistic and the watchman styles are situated at either end of a continuum, with the service style cutting through somewhere in the middle. Wilson (1968:202) suggests that while service style police agencies exhibit some organizational characteristics of the legalistic departments (e.g., high salaries, reliance on thorough record systems, and stringent mechanisms for controlling police behavior), they do not enforce the law with the same emphasis as legalistic agencies, nor do they place such a high value on progressive enforcement related activities.

This model may be depicted as in Figure 5, Relationships of Police Organizational Style to Management and Administration Characteristics. This model depicts two stylistic dimensions: Enforcement and Service. Each dimension has its own unique managerial and administrative characteristics. Because this matter of style is two-dimensional, it is likely that any police organization could be characterized as fitting somewhere in either of the four quadrants of the figure.[20] Thus, each organization may exhibit some of the noted characteristics accompanying the service style dimension and some of those characteristics accompanying the enforcement style dimension.

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[20]A quadrant is the section of the figure marked by a measure of enforcement style on the horizontal and service on the vertical.

Figure 5

RELATIONSHIPS OF POLICE ORGANIZATIONAL STYLE
TO MANAGEMENT AND ADMINISTRATION CHARACTERISTICS



HIGH SERVICE STYLE
- High salaries.
- Strict management control systems.
- Premium on record keeping and documentation.
- Emphasis on appearance and courtesy.
- Strong emphasis on community "outreach programs."

LOW ENFORCEMENT STYLE (WATCHMAN)

HIGH ENFORCEMENT STYLE (LEGALISTIC)

- Lower salaries.
- Less in-service training.
- Less incentives for continuing education.
- Less organizational specialization.
- Recruitment largely from local area.
- Less emphasis on formal directives or policies.

- Higher salaries.
- More in-service training.
- Continuing education incentives.
- Greater organizational specialization.
- Widespread recruitment practices.
- Existence of formalized policies and directives.

LOW SERVICE STYLE
- Low salaries.
- Less stringent management control systems.
- Less emphasis on record keeping.
- Less emphasis on appearance and courtesy.
- Less emphasis on community "outreach programs."

It should be stressed that this graphic is derived from qualitative, exploratory studies of police organizations. There is not sufficient knowledge, therefore, to posit this model as a conclusive typology of the relationship of service and enforcement styles--that is prioritizations of certain police objectives--on the management and administrative systems of the police agency. Thus it can be concluded that this subject area is ripe for further research.

What can be learned from the general management literature regarding the subject of prioritization of goals and objectives? Generally speaking, the findings from a number of studies yield further knowledge concerning the influence of a diversity in objectives on management and administration. Stinchcombe's (1959) study of the construction industry, for example, suggests that diversity of objectives leads to increased hierarchical levels in the organization structure. This finding is very pertinent to policing. Police organizations typically have very hierarchical organization structures incorporating many levels of rank and function. This is due in part to the wide diversity in police objectives.

Litwack and Hylton (1962) in their study of interdependence among organizations indicate that standardization of products and services in an organization can be correlated with coordinating activities among like organizations. Those organizations that do not have standardized services or products are less likely to place a high value on such interaction. This finding sheds further insight into the issue of why police managers rarely adopt interorganizational interaction systems. As stated by Litwack and Hylton (1962:412), "if one is to move from mechanisms of coordination to formal coordinating agencies, it is necessary to deal with standardized units of behavior." Further, it is concluded that an organization wishing to increase its efficiency in interagency coordination must standardize the behavior which constitutes interagency dependency as much as possible.

From the perspective of police management, standardizing interagency behavior connotes attempts to standardize interrelations between the police and social service agencies (i.e., those agencies likely to receive a high number of referrals) and other agencies within the broader criminal justice system. This is very difficult to do, however, given the police task. The police mission, however, is diverse and attempts to standardize tasks and activities are likely to fail.

In summary, it can be stated that the police mission is diverse and that the police by necessity attempt to achieve a large number of objectives. Because this is operationally difficult, police managers prioritize the objectives of the agency. The fact that this prioritization occurs does not detract from the bureaucratic structural style of police agencies. On the contrary, a prioritization, for example, which reinforces the legalistic style of policing tends to reinforce many of the traditional bureaucratic elements of the organization, such as formalization of written

rules and specialization of functions. These managerial steps are often taken in the name of operational and managerial efficiency.

These findings can be reduced to propositions concerning goals and objectives and police management. These propositions are:

1. Police organizations by necessity adopt an operational style to prioritize the types of objectives which are to be enforced. This operational style is set initially by the police administrator and shaped further by managers, supervisors, and individual officers at all levels of the organization.

2. Police organizational style is two-dimensional incorporating an enforcement dimension and a service dimension.

3. Efforts to move the police organization towards a high enforcement style are accompanied by traditional, bureaucratic managerial initiatives to control and coordinate the organization--its employees and activities, as well as managerial steps to attract and retain increasingly qualified personnel.

4. The broad diversity of police goals and objectives tends to reinforce hierarchical organizational structures.

5. The broad diversity in police delivered services militates against efforts to standardize and formalize interagency relations.

## Geographical Dispersion of Work Units Within the Police Organization

A relatively small number of research studies on geographical dispersion was found in both the police and the management literature. It should be kept in mind that geographical dispersion, as defined here, refers to the physical separation of work locations within an organization. It does not necessarily allude to decentralization of authority. This latter topic is examined in Conceptual Cluster IV under the variable labelled Decision-Making Systems. The police literature examined for this study contained no studies on geographical dispersion. Therefore, any knowledge to be derived on this topic must be drawn from the general social science sample. This literature presents several conclusive generalizations which can apply to the police field, as well as to any other organizational discipline.

Perhaps one of the most prominent studies on this topic is one by Pugh, Hickson, Hinings, and Turner (1969) in which the authors related

geographical dispersion, as well as many other factors to characteristics of structure within organizations. These authors found that organizations delivering services to the public were likely to have more than one operating site. Further, it was observed that geographical dispersion was positively correlated with concentration of authority and with stringent supervisory control systems.

This last finding coincides with the finding of Udell (1967) demonstrating that geographical dispersion is associated with large spans of control in management systems. Udell's work, based on a number of alternative manufacturing organizations, also suggests that geographical dispersion is not likely to occur when workers have highly dissimilar functions, but does occur when workers are highly experienced in their jobs. Finally, Udell found that there was negative correlation, although not strong, between geographical dispersion and formalized policies. This finding was also noted by Pugh, Hickson, Hinings, and Turner (1969).

When coupled with the findings of Randall (1973) suggesting that geographically dispersed organizations develop more favorable relations with their clientele, these results can be said to provide a framework of relationships concerning geographical dispersion. These relationships can be depicted graphically as shown in Figure 6. It should be remembered that these relationships were derived from a relatively small number of studies and, therefore, may not constitute a theory concerning this subject.

Figure 6

RELATIONSHIPS BETWEEN GEOGRAPHICAL DISPERSION
AND MANAGERIAL DIMENSIONS
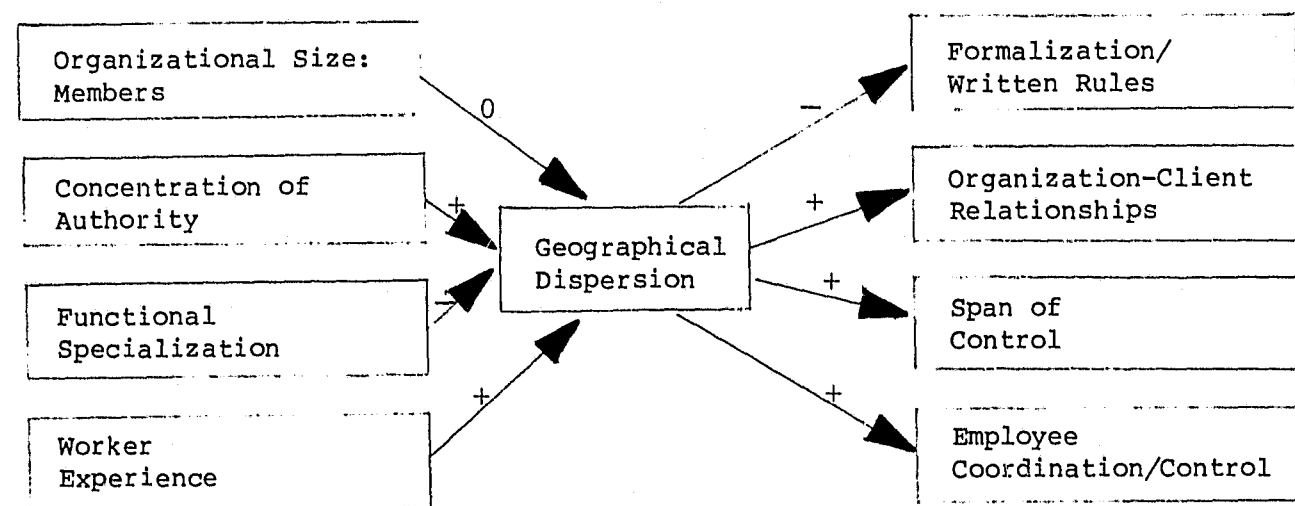
How can this knowledge be transferred to law enforcement? First, it can be said that geographical dispersion, or the installation of operating sites (e.g., police precincts), is not necessarily associated with decentralization of authority. On the contrary, these works illustrate that police agencies may institute geographically dispersed units without decentralizing authority. This would not necessarily work well for all police practices, but may for those functions that are highly similar, categorized as having rather regular and routine supervisory control of work efforts, do not require extensive formalization of rules and procedures, and include experienced workers. In some respects, this describes the police patrol officer. The only elements which do not are the notions that workers in such a geographically dispersed operation do not require formalized directives and have supervisors with large spans of control. The finding concerning formalized policies should be placed in proper perspective. If this suggests that not every action of the individual worker can be tightly defined through directive, then it is quite pertinent to police patrol operations. Patrol officers may well require general operational guidelines because of the virtual impracticality of defining definitive policies to guide every patrol incident. The notion that geographical dispersion is associated with large spans of control may be problematic for policing. Police managers generally are of the opinion that small spans of control are needed to control and coordinate patrol activities.

Taken in context with the observation that geographically dispersed organizations may, in fact, receive more favorable relations with their clientele (Randall, 1973) and that organizational size does not correlate with geographical dispersion, at least as based on the studies reviewed for this project (Udell, 1967; Pugh, Hickson, Hinings, and Turner, 1969; Randall, 1973), this suggests that police agencies may disperse more of the patrol efforts and still retain management control, while concurrently generating greater support from their clientele. These observations are consistent with some of the findings from assessments of team policing programs which are structured, at least by design, to foster greater support in the community (e.g., Sherman, Milton, and Kelly 1973; Schwartz and Clarren, 1977) and may support many of the notions within organizational theory suggesting that to be effective, managers must view "the organization as a unit in interaction with its environment" (Thompson, 1967:4-6). The key link to achieving these outcomes may be the supervisory position. Whereas manufacturing organizations may be able to coordinate work efforts with a large span of control, it is unlikely that this will occur in policing.

Because the literature, at least as sampled for this study, contains no analyses of the effects of geographical dispersion in policing, it is not possible to generate a list of propositions for this variable. The general management literature, as sampled for this project, suggests certain linkages between geographical dispersion and other selected managerial dimensions. These concepts, however, should be applied to a law enforcement environment before any testable propositions can be developed.

## Task Variability and Police Organization and Administration

The reviewed literature on this variable suggests that, for the most part, police organizations can be characterized as having a high degree of task variability, both within functional units or positions, and across specialized units (Tifft, 1974; Tifft, 1975; Jermier and Berkes, 1979). This variability stems directly from the ambiguous nature of the police function. Thus, the variability in the goal and task structure of the police organization, as created by social and political differences concerning the role of the police (Walker, 1976), affects the work roles and tasks of individuals and work units. This characteristic of police organizations has direct implications for management and administration.

Jermier and Berkes (1979) investigated the relationships of task variability to job satisfaction and organizational commitment in police organizations. This study examined task variability as an intervening measure between supervisory roles and commitment and satisfaction. They found that task variability, as well as leader participativeness (defined as "Committees" for purposes of this study), both were "highly significant predictors of both subordinate job satisfaction and organizational commitment" (Jermier and Berkes, 1979:16).

Tifft (1975) studied task variability in police agencies from the perspective of employee control structures, structurally determined power bases, and the exercise of power. His intent was to analyze the influence of structure and supervisory behavior patterns on the behavior of policemen. He found that the "patrol sergeant was in a structurally weak position to exercise significant influence on his subordinates" (Tifft, 1975:71). This occurred in part because of the variability in the work of patrol officers.[21]

The implication from Tifft's research, as well as the study by Jermier and Berkes, is that task variability is prevalent in policing and that it negates to a certain extent the influence of the classic, paramilitaristic organizational structural model on behavior. This model, as developed from Weber's classic model of bureaucracy (Gerth and Mills, 1958), assumes that the organization will be dealing with routine or uniform tasks. Critics of Weber's model point out that in organizations with a diverse task structure (hence non-routine tasks) many of the assumptions do not hold (see, for example, Blau, 1956; Litwack, 1961; Perrow, 1967; Blau and Schoenherr, 1970). This may well be the case for police management and administration.

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[21]/Tifft expands on his discussion of variability in the police function by examining work patterns of traffic units, tactical units, detectives, and vice and gambling investigators, as well as patrol units.

Research in other disciplines provides additional data to buttress this finding. It has been observed that task predictability determines to a certain degree the type of coordination strategy that is most appropriate (March and Simon, 1958; Litwack, 1961; Perrow, 1967). Several researchers support this notion through findings that a high level of task variability is correlated with a low level of formalization of written rules (Hage and Aiken, 1969; Pugh, Hickson, Hinings, and Turner, 1969). Additionally, research has shown that organizations with high degrees of task variability normally have a low span of control (Udell, 1967), have difficulty in sequencing tasks, and rely on feedback as a means of coordination. Van de Ven, Delbecq, and Koenig (1976) illustrated the inappropriateness of the bureaucratic model of coordination and control, showing that task uncertainty tended to foster the substitution of personal and group coordination through plans, schedules, and rules and procedures. Further, it has been shown that task variability does not usually lead to decentralization of authority (Hage and Aiken, 1969; Comstock and Scott, 1977). Management is not likely to push authority down the organizational hierarchy in such organizations because of the uncertainty of the task structure.

This is not to say that positive, desired behavior cannot be achieved by management in organizations having high levels of task variability. On the contrary, several researchers have shown that task variability is associated with employee satisfaction and commitment (Alderfer, 1967; Cummings and El Salmi, 1970; Dewar and Werbel, 1979; Jermier and Berkes, 1979). Further, it has been shown in a study of innovations in school systems that task variability is correlated with receptiveness toward change (Baldridge and Burnham, 1975).

These relationships, as observed through the research studies examined for this project, can be depicted graphically as shown in Figure 7 below.

Figure 7

RELATIONSHIP OF TASK VARIABILITY TO
MANAGEMENT AND ADMINISTRATIVE CHARACTERISTICS

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                                    ┌─────────────────────────┐
                                    │ Employee Satisfaction   │
                              + ┌──→│ and Commitment          │
                                │   └─────────────────────────┘
                                │   ┌─────────────────────────┐
                              - │   │ Formalization/          │
                              ┌─┼──→│ Written Rules           │
┌──────────────────┐         │ │   └─────────────────────────┘
│ Task Variability │─────────┤ │   ┌─────────────────────────┐
└──────────────────┘         │ │ - │ Employee Coordination/  │
                              └─┼──→│ Control                 │
                              + │   └─────────────────────────┘
                                │   ┌─────────────────────────┐
                                └──→│ Centralization of Decision-│
                                    │ Making Authority        │
                                    └─────────────────────────┘
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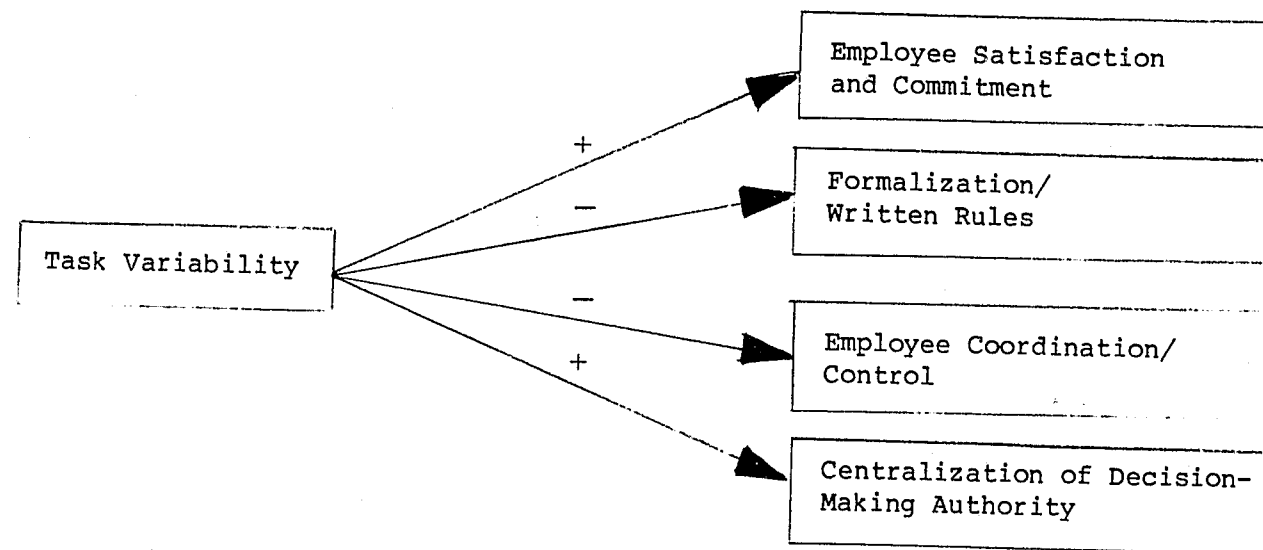
These research studies pose several interesting implications for police administration. It can be concluded that the police task structure is highly variable, yet employee commitment and satisfaction can be achieved with a high level of task variability. The reliance on hierarchical, bureaucratic, leadership models, still in place in many police agencies, however, will not likely influence satisfaction and commitment because this model assumes task routinization, not variability. Therefore, efforts to induce desired behavior through inflexible rules and procedures, stringent, militaristic styles of supervisor-subordinate interactions, and one-way supervisor-subordinate communication networks may not work as expected.

These findings can be reduced to a series of propositions concerning the relationship of task variability to police organization and management. While certain of these propositions have been developed from police management research, there is certainly a need for further empirical validation of these propositions in police organizations. These propositions are:

1. The high degree of task variability within the police occupation can be attributed to police officer satisfaction and commitment to the organization and may be attributed to receptivity to change.

2. Traditional, militaristic modes of management coordination and control are not likely to induce desired employee behavior in policing, due to the high degree of task variability in the police function. Rather, management systems which emphasize leader participativeness and personal and group integration efforts are more likely to induce desired performance.

3. The high degree of variability in the police task structure necessitates a concentration of management decion making authority to best coordinate and manage the police function.

The Relationship of Size of the Police Organization to Management and Administration

This is the one topic in this conceptual cluster which has received considerable attention by researchers in police science and administration. It has also been the subject of extensive research in general management and social science. Thus, there is a considerable body of research results which, upon examination, will yield a knowledge base on the relationships of size to various other managerial and administrative dimensions.

The literature analyzed for this project on size and police organizations and management primarily addresses outcome questions regarding differences in agency size, rather than internal structural issues. Two central themes emerge from the analyzed police literature. They are: (1) inquiries regarding the relationship of size to organizational effectiveness and (2) inquiries regarding the relationships of size to cost-effectiveness. These studies are predominantly exploratory by design.

The general social science literature, in contrast, focuses not on outcome criteria, but on internal process and structural criteria (i.e., how size of the organization affects the internal management and administration systems). Such levels of inquiry have been of considerable interest to social scientists and management theorists for many years. Because these areas of interest are quite divergent, it is most appropriate to examine findings separately.

The Effects of Police Agency Size on Organizational Outcomes. The works of Elinor Ostrom, Roger Parks, Gordon Whittaker, Dennis Smith, and other colleagues have been the primary research studies on the effects of size on police organization. These researchers have examined the notion that consolidation of police services is an effective way to reduce costs and

improve services.[22/] Arguing that proponents of this position do not rely on empirical evidence to support their premise, do not define what improvements are likely to result from consolidation, and that the state of the art of measuring police performance is quite crude (see, for example, Ostrom, 1973),[23/] these researchers examine the relationships between size and outcomes.

It has been demonstrated elsewhere that communities with larger populations spend more for police service (Rogers, 1969; Cole and Gamble, 1979). What can be deduced from the works of Ostrom and her colleagues concerning the effects of these expenditures? It has been demonstrated that size of the police agency is negatively related to citizen perceptions of police service in a number of studies (Ostrom, Parks, and Whitaker, 1973; Ostrom et al, 1973; Ostrom and Smith, 1976). Further, a separate study on the effects of fragmentation of police service in metropolitan areas concluded that size of the police agency has no bearing on citizen perceptions of service or of efficiency (Ostrom and Parks, 1973). These studies, certainly, at first glance raise questions about the validity of arguments proposing advantages from the consolidation of police services. The policy significance of these findings mandates a closer examination of the methodologies employed in these studies.

Ostrom and her colleagues generally measure police service output from the perspective of citizens' perceptions regarding their experience with the police, their evaluation of this experience, and their general feelings of security in their community or neighborhood. These measures of output are used rather than arrest or clearance statistics. While these are certainly valid measures of output, are they the only measures and are they sufficient to provide a knowledge base? The answer to this question is no. Ostrom and her colleagues have proposed other measures of performance generally referring to internal production strategies and decisions (Ostrom, 1973; Whitaker,

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[22/]The assertion that improvement in police services will result from consolidation appears in many police texts and advisory recommendations for police improvements. The Task Force on Police of the President's Commission on Law Enforcement and the Administration of Justice (1967), for example, stated that "formal cooperation or consolidation is an essential ingredient in improving the quality of law enforcement." Additionally, the National Advisory Commission on Criminal Justice Standards and Goals (1973:108) recommended that "At a minimum, police agencies that employ fewer than 10 sworn employees should consolidate for improved efficiency and effectiveness."

[23/]Further discussions concerning the measures of police performance appear in Chapter VII--Organizational Achievement.

Mastrofski, Ostrom, Parks, and Percy, 1980). These measures include not only citizen perceptions, but also measures of physical output (e.g., total of emergency services provided by the police agency or by a single production unit in the agency, total of missing persons found per capita, total stolen automobiles returned per capita, total number of apprehensions of burglary suspects, and total amount of stolen property returned per burglary). These measures of output and others are, for the most part, not utilized in measures of police service. Because they are not, it is difficult to develop firm conclusions about the effects of agency size on police service delivery.

In addition, the findings of these studies can be questioned from the perspective of what effect socioeconomic status of the citizen has on the citizen's evaluation of service. Pachon and Lovrich (1977) researched the relationships between perceptions of police service and agency size, comparing central city to suburban areas while controlling for certain socioeconomic factors. They found that citizen satisfaction varies inversely with jurisdictional size when no controls for socioeconomic characteristics are included in the analysis. However, upon controlling for these factors, there appears to be very little evidence of a negative relationship between jurisdictional size and citizen satisfaction. In explaining this phenomenon, these authors assert that the difference between central city and suburban perceptions of the police are much more a reflection of the differing socioeconomic characteristics of these two interdependent metropolitan subsystems than a result of their relative sizes.[24/]

What then can be concluded about the effects of size of the police organization on performance? It can be stated, based on the literature reviewed for this study, that citizens will hold differing perceptions of police service in large, as opposed to small, communities or communities served by large rather than small police agencies (however this distinction in size of agency is defined). However, to conclude that the large police organizations are less effective and less efficient than smaller police organizations would be premature. In short, additional research is needed to further control for socioeconomic characteristics and to introduce other measures of performance into analyses of this relationship.

The Effects of Organization Size on Internal Management Structure. What knowledge can be deduced from the literature on effects on organization

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[24/]This finding is supported by the notion that citizen and, hence, community norms exert an influence on police behavior and on the management of the police organization. This topic is discussed further in Chapter II of this document.

size on internal structure?  This relationship has been studied extensively. Interest in the effects of size on other organizational properties can be traced back to the classic formulation by Emile Durkheim (1954).  In trying to explain the evolution of the form of social order from "mechanical" to "organic" solidarity, Durkheim posited size, density, and heterogeneity as the major causal factors.  As societies grew along those three dimensions, they became increasingly complex in structural terms.  Work became highly specialized and a functional division of labor grew up to organize it. Coordination of the specialized parts was no longer "automatic," but rather became the specialized responsibility of identifiable managers and administrators.  Society increasingly came to be a collection of specialized, interdependent parts, with the interdependence a planned and managed activity itself assigned to specialists.  Many organization theorists adopted Durkheim's hypotheses to guide their inquiries concerning management and administration.  Specifically, they began to test two elements of his model: (1) organization size can be correlated positively with administrative coordination and with differentiation of functions and responsibilities in organizations and (2) that differentiation also is positively associated with administrative coordination.

What are the empirical results of those inquiries?  Granting that differentiation has been defined slightly differently from study to study, the results, nevertheless, confirm the hypothesis about size and differentiation.[25/]  Larger organizations tend to be more structurally elaborate than smaller ones; they tend toward a greater degree of job specialization within organizational units and a larger number and a greater degree of specialization of the units themselves (Rushing, 1967; Pugh, Hickson, Hinings, and Turner, 1968, 1969; Pondy, 1969; Comstock and Scott, 1977; Beyer and Trice, 1979).  Similarly there is a general consensus around the differentiation-coordination hypothesis, again granting an even wider variation in empirical definitions of the latter.  In general, the more differentiated the organization, the more of an administrative cadre is needed to manage the coordination of the differentiated units (Rushing, 1967; Rosengren, 1967; Pondy, 1969).

What can be said about the size-coordination relationship?  Again there is a problem of different measures of the latter used in empirical

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[25/]Differentiation in this context normally refers to functional and/or departmental specialization.

research, among them the supervisory ratio, the span of control ratio, and the administrative intensity ratio.[26/]  Initially, the findings in this area were mixed, but with the appearance of more studies, a consensus has emerged. These studies tend to refute Durkeim's hypothesis.  Size and coordination appear to be negatively associated:  larger organizations tend to have smaller numbers of administrative/management personnel (Indik, 1964; Rushing, 1967; Pondy, 1969; Klatzky, 1970).  In fact the relationship appears to be curvilinear, as depicted in Figure 8 below.

Figure 8

RELATIONSHIP OF ORGANIZATIONAL SIZE
TO ADMINISTRATIVE SUPPORT GROUPS



Administrative
Cadre

Organizational Size
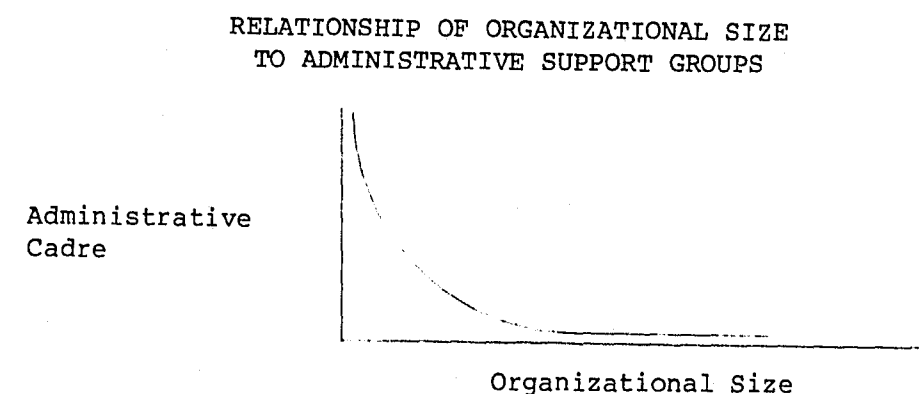
The empirical literature, as examined for this study, then presents two separate dynamics somewhat conflicting in their implications for organization and management.  On the one hand, growth in an organization will produce differentiation--the creation of new and functionally specialized work units.  The coordination of these work units then requires more managerial personnel.  On the other hand, growth by itself does not necessarily produce an increase in administrative/management positions.  Peter Blau has attempted

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[26/]Usually, these indicators are calculated as:

$$\text{Supervisory Ratio} = \frac{\text{Number of Supervisors}}{\text{Number of Organizational Members}}$$

$$\text{Span of Control} = \frac{\text{Number of Production Employees}}{\text{Number of Production Personnel}}$$

$$\text{Administrative Intensity} = \frac{\text{Number of Managers, Professional, and Clerical Workers}}{\text{Number of Production Personnel}}$$

to put this conflict into analytical perspective by testing observed relationships further. Blau (1974:348) found:

> ". . . the influence of increasing size on reductions in administrative personnel is more and more counteracted by the expansion of such personnel in the increasingly differentiated structure, and hence declines."

From still another perspective on the effects of size, organization size has been shown to be either negatively related or to have no bearing on hierarchical structure (Rushing, 1967; Meyer, 1968; Inkson, Pugh, and Hickson, 1970). This finding produces yet another twist to the knowledge base on size. Although larger organizations tend to differentiate by function more than smaller agencies and have a larger management group, they do not necessarily rely on hierarchical levels to ensure managerial coordination any more than do smaller organizations.

Still another finding from the general management literature is that larger organizations are more likely to introduce formalized written rules and procedures (Rushing, 1967; Inkson, Pugh, and Hickson, 1970) and employ more stringent employee coordination/control mechanisms, or more strict bureaucratic systems (Ouchi, 1977). These findings support the notion that larger organizations utilize and require more formal employee coordination devices to ensure compliance. The outcome of these bureaucratic control mechanisms may, however, result in less employee commitment and less satisfaction within the work environment (Brown, 1969; Cummings and El Salmi, 1970).

The fact that many of these bureaucratic variables appear to be related to size raises the question of possible multicollinearity. As organizations grow, they adopt a larger administrative cadre to control employee behavior. These managers then employ more formalized control mechanisms to induce desired behavior. Thus, the findings of increased formalization and more stringent employee coordination/control may well be explained by simply an increased emphasis on managerial coordination, although this finding was not supported by research studies reviewed for this project.

One additional effect of increases in size and increases in structural differentiation is the notion that larger organizations may perhaps be more innovative than smaller organizations. Several researchers in the general management arena have examined the relationship between size and propensity to adopt innovations and have found that larger, more complex organizations tend to adopt changes more readily (Aiken and Hage, 1968; Baldridge and Burnham, 1975; Blau and McKinley, 1979). While there is a somewhat opposing view in the literature that it is the organization's ability to adapt to the environment, rather than size, which is the most critical determinant of innovation, (see, for example, Lawrence and Lorsch, 1967) the findings

positing the relationship between size and innovation cannot easily be disregarded.[27]

What significance do these findings have for police management? In general, they indicate that larger police organizations will tend to have more specialized and larger work units and that the existence of these additional units normally will parallel increases in the number of administrators/ managers in police agencies. Similarly, larger police agencies will feel the necessity to introduce more formal coordination/control mechanisms. Smaller organizations with low levels of differentiation are less likely to have a large management group and formalized bureaucratic control systems. Thus, increases in size of police agencies will at some point be accompanied by increases in specialized units. This point has been suggested by Browne (1974) in a survey of police chiefs inquiring how they would spend additional resources if they were available. Browne found a distinct split of opinions according to size of the organizations. Police chief executives in larger organizations indicated that they would use the funds to institutionalize or increase the size of special functions or to purchase new equipment. The chief executives in smaller agencies, in contrast, indicated that they would use the funds to put more officers on the street and initiate more community oriented programs.

This suggests that larger police organizations may allocate a considerable portion of their managerial effort toward sustaining themselves and developing more specialized functions (e.g., planning and research, training, fiscal analysis, and supply) and at the same time have greater proportion of managers. The net result of such a trend may be less officers in operational units and an over-emphasis on specialized functions. The converse to this would be that police organizations undergoing growth can develop and enlarge specialized functions without impacting operations and that this increased differentiation will positively influence the likelihood of adopting organizational changes. In fact, proponents of this theory might argue that increased utilization of specialized units will only benefit the operational elements of the agency. These analytical questions cannot at this time be answered from existing empirical research, but would certainly be relevant inquiries worth pursuing.

A somewhat related research finding throws an additional level of inquiry into this scenario. Pondy (1969) has observed that the size of the administrative component is also subject to rational decisions and manipulation. The term rationality here refers to the notion that organizations are structured, at least in part, to serve the interests of

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[27]Further discussions on the subject of environmental uncertainty and organizational change appear in Chapter II.

those in control of the organization. Pondy's work (1969) supports this notion by showing that owner-control of an organization leads to a smaller administrative component, while salaried, managerial control leads to larger one. For owner-controlled organizations, the lower overhead costs of small administrative cadres are directly reflected in the economic returns of the organization. For the salaried manager this return is more indirect.

This finding can be transferred to police organizations with the analogy of city manager forms of government exhibiting larger administrative, support components than in cities with other forms of control. Again, the manager only indirectly is responsible for the effects of introducing this larger component. The major or council more directly realizes the return during periods of election. This relationship cannot be confirmed from this present study and certainly would be a subject for further research.

Given these findings, what conclusions can be derived concerning the relationships between organization and internal structure and administration? The following propositions can be deduced. These are pertinent for police organizations, as well as other organizations in other disciplines.

1. As an organization grows in size, its internal complexity grows in size.

2. Larger and more complex organizations require more administrators and managers to effect internal coordination.

3. Increases in size of organizations are normally accompanied by increases in bureaucratic administrative control systems. Organizational growth is not normally associated with increased hierarchical levels in the organization, but is associated with a greater reliance on formalization/written rules and closer supervision of the work effort.

4. Simple increases in organizational size can promote economies of scale (through the addition of proportionately fewer administrators and managers), but this effect is subject to the rational interests of the corporate executives or owners.

5. With continued organizational growth, the effects of internal differentiation on the size of the administrative component overwhelms those of increasing size.

## Summary and Conclusions

This chapter has analyzed the results of research studies on seven unique variables defining the goal and task structure of the organization. It is apparent from this review that this subject area has not been the focus of extensive research in the law enforcement discipline. Only one variable (organizational size: members) has been examined in depth. The remaining variables in this cluster have been subjected to research in a small sampling of studies. However, many of these are qualitative by design, and in some instances, do not permit the development of conclusive findings. Thus, additional research should be initiated to further examine the effects of the police goal and task structure upon the organization and, conversely, to analyze the impact of organizational and managerial activities on this goal and task structure. Suggestions for research topics are included in the list of recommendations appearing in this summary.

The only subject area in this conceptual cluster which has been researched extensively in police organizations is that of organizational size: members. The sampled studies on this topic focus on organizational outcome measures generally focusing on one outcome parameter only--that of citizen perceptions of police services or of citizen perceptions of feelings of security. While these studies raise certain questions about the efficacy of many traditional propositions concerning size of the police agency and impact, they do not yield sufficient findings upon which to derive conclusive statements about these propositions.

The general management arena provides a considerable body of research to help define answers to questions concerning the effects of the police goal and task structure on other managerial and administrative dimensions, but not all of the findings from such research can be immediately generalized to the police organization. Perhaps the major contribution of these studies concerns the subject of organizational size. Research in many disciplines suggests generic relationships between the size of the organization and its internal management control system. It is clear from these studies that such systems will vary by size of the organization.

The general management sample also includes studies which suggest that organizations with a highly variable task structure can better coordinate employee behavior through management systems which do not rely on highly structured, bureaucratic forms of managerial control. This topic has also been researched in police organizations with similar findings produced. Such studies suggest that traditional police supervisory systems may not be appropriate given the level of variability in the police task. Such a finding raises the question as to what forms of control and coordination are most appropriate for the police function. One available sampled study provides some answers to this question, but does not in and of itself yield conclusive findings upon which to derive a theory concerning this matter.

Additional research then is needed in several areas. Specifically, it is suggested that the following topics be researched further:

● The issue of organizational style should be examined in greater detail beginning with firm operational definitions of style. These studies should embody quasi-experimental or experimental designs and should feature more sophisticated, multivariate forms of analysis.

● The subject of geographical dispersion should be researched in police organizations to determine to what degree the findings from general management can be transferred to police organizations. This research should carefully distinguish between geographical dispersion (the physical location of work units) and decentralization of authority.

● Additional research should be undertaken to test the propositions presented in this chapter concerning task variability and organizational and managerial dimensions influenced by variability of tasks in policing. Further, research is needed to identify the most appropriate supervisory systems for police activities with a high degree of task variability.

● The research findings concerning the relationships between size of police agencies and outcome measures (e.g., effectiveness, cost-effectiveness) should be supplemented by additional research which focuses on alternative output measures (other than citizen perceptions of services), as well as analyses of the possible relationships between organizational size and propensity to adopt innovations.

● Further research is needed to verify the propositions contained in this chapter and developed from general management research regarding variations in police internal managerial control and coordination systems according to size of the organization. Such studies should incorporate multivariate statistical analyses in order to facilitate the development of inferences concerning this subject.

IV. INTERNAL STRUCTURAL DIFFERENTIATION

## Introduction

Once organizations determine the mission that they are to perform, enumerate working objectives, and specify tasks to be accomplished, they then begin to structure the specific jobs to be performed by organization members. The precise method of structuring individual jobs is contingent upon the work tasks of the organization, the environment in which the organization operates, and the personnel resources available. The impact of these factors on the structure of work activities forms the basis of inquiry for this chapter. The focus of this chapter then is on individual work activities with an interest in examining variations in structuring these activities, principally in the police organization.

The variables analyzed in this chapter cumulatively describe the management considerations critical to organization structure and coordination and control of the work effort. Before administrators in any organization define work units, assign supervisors to monitor performance, and prepare procedures to guide work activities, they should consider the work to be performed with a focus on the degree of specialization required, the necessary level of skill and professionalism, and the amount of technology required, among other considerations. They will also analyze the effect of variations in human resources in an effort to determine the impact of personal differences in the work force on the activities to be performed. These considerations and their attendant effects on the organization are assessed in this chapter.

A central element in the structuring of work tasks is division of labor. Structuring of organizations is contingent upon the number of different functions to be accomplished and the similarity of these functions. Variations in internal structure hinge on the number of such functions that can realistically be performed by any one individual for a number of individuals in the same position. Further, there are differences in the degree of grouping of these tasks into work departments or units. This chapter analyzes these variations in police agencies and considers the transfer of findings from empirical research in other organizations to the police organizational environment.

Division of labor in organizations is intimately linked with the nature and degree of technological complexity in work tasks, as well as the skill structure of the organization. Separate analyses of the impact of both technological complexity and skill structure are included in this chapter to facilitate an assessment of the effects of variations in these structural elements on management and administration.

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The analysis of skill structure also includes an examination of degrees of professionalism inherent in organizations with an assessment of the effects of variations in this variable on management and administration. This analysis considers the notion of developing professionalism in police organizations with a comparison to professionalism in other organizational settings. Two questions are incorporated in this analysis: what knowledge can be derived from investigations of professionalism in policing, and how do movements toward increased professionalism affect management structure and administrative coordination and control efforts?

Social stratification in organizations also is a critical factor in internal structural differentiation. Stratification is defined in this context as the unequal ranking of people in the organization. All organizations exhibit such stratification and embody various dimensions of stratification. Four such dimensions are analyzed in this chapter: sex, race, seniority, and education. These dimensions were intentionally selected because of their relevance in police organizations. Numerous research studies in policing have investigated the effects of variations in these dimensions.

As in previous chapters, the variables addressed in this chapter are analyzed from two perspectives. The effects of environmental, organizational, administrative, and social influences on internal structural differentiation are considered, as well as the impacts of variations in structural differentiation on other managerial, organizational, and social variables.

### Descriptive Findings

A comprehensive review of the police management literature identified 82 empirical studies which examined variables included in this conceptual cluster. Additionally, 33 related studies were found in the non-police literature.[28/] These studies were carefully reviewed and coded to derive a synthesis of knowledge pertaining to internal structural differentiation. The section which follows includes a discussion of the number of studies reviewed by specific variables, the types of research designs employed, the level of analysis, and a summary of the findings by specific variables.

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[28/] It should be noted that the 33 non-police studies reviewed for this cluster represent only a small portion of the total number of studies on this topic. Nevertheless, these studies will provide an indication of the state of the art for the general management literature.

### Number of Studies by Specific Variables

Eight distinctive variables are incorporated in the conceptual framework for the cluster entitled Internal Structural Differentiation. These variables are: (1) Functional Specialization; (2) Departmental Specialization; (3) Technological Complexity; (4) Skill Structure, Professionalism; (5) Internal Stratification: Sex; (6) Internal Stratification: Race; (7) Internal Stratification: Seniority; and (8) Internal Stratification: Education. Definitions for each of these variables are included in Chapter I: Detailed Study Methodology. The four variables on stratification (i.e., sex, race, seniority, and education) were added to Heydebrand's original framework to accommodate the rather extensive analyses of these contemporary issues of concern to police administrators. Upon completion of the review process, four variables (departmental specialization, skill structure, professionalism, and internal stratification: seniority) appeared to be too broad in scope and, therefore, the project team felt it necessary to identify and define key sub-variables to describe more completely the content area of sampled studies.

Table 12 displays the number of studies reviewed by specific variable and sub-variable within the conceptual cluster for both police and non-police studies. Many of the studies reviewed in this cluster examined more than one variable; thus, the totals in the table will equal more than the total number of studies reviewed for this cluster.

As shown on Table 12, the majority of police studies in this cluster examined education, seniority, skill structure, and professionalism, while the non-police studies focused on functional and departmental specializaion and technological complexity more than any other variable. This finding is not surprising given the growing interest, for example, in the concept of higher education for police. A significant number of studies reviewed indicated that police officers with higher educational backgrounds performed better than police officers without such an education. Similarly, there has been considerable interest in policing in seniority of police officers. Researchers often analyze the effect of seniority on officer perceptions and behavior.

There appears to be a lack of research in policing on technological complexity and the effect it has on employees, and on internal management. This void may be due to the relatively recent adoption of technological advances (e.g., automation) in police organizations.

Table 12

NUMBER OF STUDIES REVIEWED BY SPECIFIC VARIABLE
(CONCEPTUAL CLUSTER III)

| Variable Number | Name | Police | Non-Police |
|---|---|---|---|
| 13 | Functional Specialization | 6 | 13 |
| 14 | Departmental Specialization (Total) | 10 | 9 |
| | ● General Degree of Specialization | (4) | (9) |
| | ● Use of Civilians | (4) | (0) |
| | ● Establishment of Special Programs | (2) | (0) |
| 15 | Technological Complexity | 1 | 10 |
| 16 | Skill Structure, Professionalism (Total) | 20 | 11 |
| | ● Skill Structure | (1) | (1) |
| | ● Organizational Professionalism | (12) | (1) |
| | ● Individual Profesionalism | (7) | (9) |
| 17 | Internal Stratification: Sex | 4 | 2 |
| 18 | Internal Stratification: Race | 16 | 0 |
| 19 | Internal Stratification: Seniority (Total) | 23 | 2 |
| | ● Number of Years of Service | (13) | (2) |
| | ● Socialization: Selection to Assimilation into the Organization | (10) | (0) |
| 20 | Internal Stratification: Education | 25 | 2 |

## Research Designs

The second step in this phase of the analysis was to identify the type of research designs utilized. Studies were classified as Exploratory, Case Study, Quasi-Experimental, or Experimental. Members of the research team also coded whether the eight variables in this cluster were treated as independent or dependent variables.

Research Design Types. Table 13 illustrates the results of this analysis. As was the case with the studies analyzed in previous conceptual clusters, the vast majority of the research conducted used either exploratory or case study designs. This was true for both police and non-police studies, although it should be noted that nine percent (9%) of the research in the general management field employed either quasi-experimental or experimental designs.

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Table 13

TYPES OF DESIGNS FOR SAMPLED STUDIES

| Types of Designs | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Exploratory | 46 | 57 | 26 | 79 |
| ● Case Study | 31 | 38 | 4 | 12 |
| ● Quasi-Experimental | 3 | 4 | 1 | 3 |
| ● Experimental | 1 | 1 | 2 | 6 |
| | 81 | 100% | 33 | 100% |

It is conceivable that certain variables in this cluster could be analyzed through more sophisticated research designs in policing. Analyses of functional and departmental specialization, as well as technological complexity, for example, could potentially be subjected to either a quasi-experimental or experimental design if the unit of analysis were the organization; i.e., the police department. If this occurred, a comparison would be possible between departments, emphasizing generalist versus specialized roles of police officers, or between a medium-sized department which exhibits a high degree of technology and one which does not. The researcher would then be able to assess the impact of these structural and organizational differences and draw causal inferences. It would be interesting to see the effect that specialization and/or technology has on skill structure, individual and organization performance, and citizen's perceptions of the department, as well as on other topics.

Treatment of Variables in Research Designs. The sampled studies were also reviewed to determine if the variables were treated as independent or dependent variables in research designs. Table 14 presents the results of this analysis. As previously indicated, the total number of studies represented here equals more than the total number of studies reviewed due to the fact that certain research reports analyzed more than one variable.

Table 14

TREATMENT OF VARIABLES IN RESEARCH DESIGNS

| Variable Number | Name | Police | | Non-Police | |
|---|---|---|---|---|---|
| | | Independent | Dependent | Independent | Dependent |
| 13 | Functional Specialization | 4 | 2 | 8 | 7 |
| 14 | Departmental Specialization | 5 | 6 | 7 | 4 |
| 15 | Technological Complexity | 1 | 0 | 9 | 1 |
| 16 | Skill Structure Professionalism | 11 | 10 | 6 | 5 |
| 17 | Internal Stratification: Sex | 3 | 1 | 2 | 1 |
| 18 | Internal Stratification: Race | 13 | 3 | 0 | 0 |
| 19 | Internal Stratification: Seniority | 22 | 2 | 1 | 1 |
| 20 | Internal Stratification: Education | 21 | 4 | 2 | 0 |

As depicted in this table, the four stratification variables were almost uniformly used as independent variables in both the police and non-police literature. These variables are not usually considered to be outcome or dependent variables. Interestingly, studies at technological complexity considered this subject to be an independent variable. Hence it is difficult to answer the following questions among others: what effect does fiscal environment have on technological complexity; what effect, if any, do material, social, and normative incentives have on sex, race, seniority, and educational stratification; and how does the informal organization structure effect internal structural differentiation? These and other important questions cannot be adequately addressed from the literature reviewed for this study.

The sampled studies, focusing on functional specialization, departmental specialization, skill structure, and professionalism treated these subjects as both dependent and independent variables. Thus it was possible to develop inferences concerning the effects of division of labor and skill structure on the organization and, conversely, to analyze the impacts of other organizational and administrative factors on these structural variables.

## Methods of Analysis

The third step in the descriptive analysis was to specify the forms of analysis used in sampled studies. The studies which were reviewed for this cluster were categorized as utilizing one of four forms of analysis: qualitative, univariate, bivariate, or multivariate.

Table 15 presents the breakdown of findings concerning forms of analysis. These data reveal that researchers in the police field employed a variety of analytical techniques, albeit more researchers (72%) utilized bivariate and multivariate methods than qualitative or univariate forms of analysis. This is the first conceptual cluster in this report in which the majority of studies utilized such sophisticated analytical techniques. As was the case in the first and second conceptual clusters, a majority of the sampled employed either bivariate or multivariate analysis techniques with over half employing multivariate statistical analysis. As previously mentioned, this result was partially due to the fact that the journal reviewed for the general management area was the Administrative Science Quarterly which tends to publish research that has relied on sophisticated analytical techniques.

The police and non-police studies which applied either bivariate or multivariate techniques were evenly distibuted across the eight variables under study. As a result, the authors attempted to infer relationships between these variables and other organizational variables.

Table 15

METHODS OF ANALYSIS FOR SELECTED STUDIES

| Methods of Analysis | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Qualitative | 11 | 13 | 1 | 3 |
| ● Univariate | 12 | 15 | 0 | 0 |
| ● Bivariate | 30 | 36 | 13 | 39 |
| ● Multivariate | 29 | 36 | 19 | 58 |
| | 82 | 100% | 33 | 100% |

The nature of the variables included in this cluster undoubtedly explains the increased application of bivariate and multivariate analytical methods. The four stratification variables frequently analyzed attitudinal or biographical data focusing on sexual, racial, or other differences among

employees, or on variations in seniority or eduction or attitudes or personal performance. Such data are more amenable to advanced statistical analysis.

## Presentation of Descriptive Findings Produced by Sampled Research Studies.

The final step in the descriptive portion of the analysis was to determine any patterns of relationship among variables within this cluster and between variables in this cluster and those in other sections of the conceptual framework. This process was performed to provide a descriptive synthesis of the findings. The results of this synthesis are presented in Exhibit C entitled "Synthesis of Descriptive Findings: Internal Structural Differentiation." Importantly, these results are descriptive in nature and do not necessarily produce a knowledge base. A discussion of knowledge-based strengths and weaknesses is presented in a subsequent section of this chapter, entitled "Inferential Findings."

EXHIBIT C


SYNTHESIS OF DESCRIPTIVE FINDINGS:
INTERNAL STRUCTURAL DIFFERENTIATION


| Police Studies | Non-Police Studies |
|---|---|
| 13. Functional Specialization | 13. Functional Specialization |

**Police Studies**

13. Functional Specialization

- Two studies indicated that functional specialization is correlated negatively with organizational effectiveness. Effectiveness was measured as a reduction in the amount of crime and clearance rates. Both studies analyzed the concept of crime control teams (similar to Team Policing Programs).

- Some indication that functional specialization is negatively correlated with public support and officer satisfaction.

- One study noted a positive relationship between functional specialization and citizen cooperation with the police.

- There appears to be no relationship between functional specialization and individual performance.

**Non-Police Studies**

13. Functional Specialization

- Research finding that the larger the organization is (i.e., the greater the number of employees), the more functionally specialized it becomes.

- The literature indicates that functional specialization is positively related to the total number of administrative/management personnel. Strong indication that the more functionally specialized the organization is, the smaller the staff supportive component.

- Indication that there is a negative relationship between concentration of authority and functional specialization in organization.

Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|
| • Indication that there are positive relationships between organizational size, and technological complexity, and functional specialization. | • Research suggests that discretion correlates negatively with functional specialization. |
| | • Indication that technological complexity and environmental relations (i.e., perceived environmental uncertainty) are correlated positively with functional specialization. Further, diversity in organizational objectives does not appear to affect functional specialization. |
| | • The literature suggests that functional specialization correlates positively with the use of committees and perceptions of organizational effectiveness. |
| | • The literature suggests that professionalism (professional authority) is positively related to functional specialization. |
| | • In non-routine organizations, functional specialization seems to correlate negatively with hierarchical structure. In organizations with a routine task structure, there is a positive relationship between functional specialization and hierarchical levels. |

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|
| | • Indication that functional specialization is negatively related to span of control (i.e., the greater the amounts of functional specialization, the smaller the span of control). |

14. Departmental Specialization

   a. <u>Degrees of Specialization</u>

     • Indication of a positive relationship between organizational and departmental specialization.

     • It appears that the more specialized the organization is, the less alienated the officers feel. Another study indicated that departmental specialization is correlated negatively with organizational effectiveness (i.e., arrest rate).

     • No relationship was discovered between departmental specialization and an officer's formal or legalistic attitudes (stressing strict enforcement of criminal violations) toward law enforcement.

14. Departmental Specialization

   a. <u>Degrees of Specialization</u>

     • Finding that organizational size is positively related to departmental specialization.

     • Two studies revealed that departmental specialization was correlated positively with organizational change (adopting innovations). A third study reported a negative relationship between these two variables.

     • Departmental specialization appears to be positively correlated with hierarchical levels in routine organizations, and negatively in non-routine organizations.

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Exhibit C (continued)

<u>Police Studies</u>

<u>Non-Police Studies</u>

● Indication that departmental specialization is positively related to decision-making systems, use of committees, administrative staff size, employee coordination and control, and organizational effectiveness.

● Technological change in the organization was negatively related to departmental specialization.

b. <u>Use of Civilians</u>

● Indication that when civil service takes on a policy formulating role (i.e., participation in the formulation of personnel policies), it has desirable or positive impact on integration of civilians in police agencies.  When civil service takes on a regulatory role (i.e., monitoring, reviewing, and regulating decisions), it has inhibiting and negative effects on the use of civilians.  The same study found that the use of civilians has no relationship to organizational effectiveness.

b. <u>Use of Civilians</u>

● The literature reviewed is silent on this variable.

Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

**Police Studies**

- Indication that in recent years civilians are being used more often in police departments, primarily in clerical roles.

- It appears that increasing professionalism in police organizations has no effect on the use of civilians in police departments.

- Indication that departmental specialization is positively correlated with functional specialization.

c. <u>Establishment of Special Programs</u>

- The literature provides a description of one specialized program in police departments: the Police Community Relations Programs which exist throughout the Country. In 1979 the average program had been in existence between 6-10 years. The greatest amount of manpower in such programs is devoted to police-school liaison work, teaching, and crime prevention programs. The average unit has approximately 11 sworn officers and 5 civilians.

c. <u>Establishment of Special Programs</u>

- The literature reviewed is silent on this variable.

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

15. **Technological Complexity**

- Indication that there is no relationship between the use of computers and organizational change and discretion.

15. **Technological Complexity**

- Finding that integration of technology is correlated positively with functional and departmental specialization.

- Finding that job complexity is negatively related to discretion. The literature also suggests that technological complexity is positively associated with environmental relations (interaction among union members) and employment of staff (supportive employees).

- Indication that higher technology is associated with a decentralization of decision-making to specialized, differentiated work units.

- Indication that technological complexity is correlated negatively with normative incentives (feelings of importance), and variability of tasks.

- No relationship was reported between job complexity and satisfaction with supervision, with co-workers, with styles of supervision, and with individual performance.

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

- Indication that the use of computers is not related to adopting innovations.

**16. Skill Structure, Professionalism**

a. <u>Skill Structure</u>

- Preliminary evidence that technical skills are most important at the entry level, human skills become important later in the police career, and finally conceptual skills are required at the executive level.

b. <u>Organizational Professionalism</u>

- Socioeconomic status of citizens and economic autonomy is not related to professionalism of the police chief.

- Finding (based on qualitative analysis) that greater centralization of government services produces more professionalism in police services.

- Finding that professionalism was correlated positively with organizational effectiveness (crime rates and apprehension rate); but was not related to organizational change.

**16. Skill Structure, Professionalism**

a. <u>Skill Structure</u>

- Indication that variability in tasks is positively related to skill structure.

b <u>Organizational Professionalism</u>

- Finding that professionalization and bureaucratization are inversely related.

- Suggestion that universities with high prestige have more interaction with their environment.

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Exhibit C (continued)

<table>
<tr><td>Police Studies</td><td>Non-Police Studies</td></tr>
</table>

- Indication that organizational professionalism is not related to the use of civilians and is negatively correlated with formalization and discretion.

- No relationship was discovered between material incentives and professionalism.

- A qualitative study of organizational professionalism stated that professionalism fosters objective standards in decision-making and it promotes self-evaluation and self-control.

- Two studies reported that organizational professionalism was negatively related to public support, while a third study indicated a positive relationship.

c. Individual Professionalism

- Several studies which assessed individual professionalism used Hall's (1968) and Snizek's (1972) professionalism scale. Miller and Fry (1976) validated this scale and found it applicable to police.

c. Individual Professionalism

- Finding that the more variable the individual's tasks were, the higher their professionalism (i.e., amount of training and education).

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|
| • Indication that police officers who scored high on the Hall and Snizek scale tended to be less cynical than their colleagues. Such a scale also indicates that the socialization process (seniority) negatively affects individual professionalism. It also appears that increased education is not related to an officer endorsing a professional model. | • Individual professionalism appears to be positively related to employee commitment, departmental specialization, organizational effectiveness (productivity), and environmental relations (boundary spanning). |
| • Other studies which did not use a professionalism scale found: | • No relationship was found between professionalism and employee coordination and control (i.e., leadership effectiveness). |
|   – "Professionally striving" officers appear to use discretion more often. | • The literature indicates that group cohesion has a positive relationhip to professional orientation to the job, but that tenure (commitment) has no relationship. |
|   – That professionalism had no effect on officer satisfaction, but was positively correlated with individual performance. | |

17. Internal Stratification: Sex            17. Internal Stratification: Sex

| Police Studies | Non-Police Studies |
|---|---|
| • Indication that civil service systems exhibiting regulatory roles have a positive impact on increased employment of females in policing. | • Indication that sexual stratification (i.e., greater number of females) is negatively related to commitment to the organization. |

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|
| • Sexual stratification appears to have a positive impact on individual performance. | • One study found that there is a greater concentration of men in occupations with greater advancement opportunities. |
| • Indication that police departments with a higher proportion of female detectives have a higher clearance rate. Other findings indicate that the total proportion of females in the department has no effect on organizational effectiveness. | |

18. Internal Stratification: Race

• Finding that racial stratification has a negative impact on group cohesion.

• Indication that black officers have a more positive perception of hostility from the community than white officers do. Further, black officers tend to have less formal legalistic attitudes (i.e., enforcement of legal sanctions) toward law enforcement.

18. Internal Stratification: Race

• The literature reviewed is silent on this variable.

Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

- Racial stratification (i.e., employment of black officers) appears to correlate positively with education, monetary and normative incentives, and organizational effectiveness.

- One study indicated no relationship between racial stratification and cynicism, while another study found a positive relationship.

- Finding that existing police selection procedures do not adequately encourage assimilation of minorities into police organizations.

- Indication that black police officers progress through the detective division at a faster rate than white officers, but white officers are promoted to the ranks of sergeant and lieutenant at a faster rate than black officers.

- Studies which examined the effects racial stratification have on individual performance revealed discrepancies in the findings. One study found no relationship, while two other studies revealed that black officers received more complaints and had more disciplinary

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

charges than white officers. Black and white officers did not differ on the number of civilian complaints, criminal charges, or allegations of harassment. The final study found a positive relationship between racial stratification and individual performance (less disciplinary actions).

19. Internal Stratification: Seniority

    a. Number of Years of Service

- There appears to be some discrepancy concerning the relationship between seniority and individual performance. One study reported a negative relationship, a second study indicated no relationship, and a third study found a positive correlation between seniority and individual performance.

- Authoritarian attitudes do not appear to increase or decrease with years on the force for state police, but increase for municipal officers.

19. Internal Stratification: Seniority

    a. Number of Years of Service

- Length of service appears to be positively related to commitment to the organization and to the effect of material incentives on performance, and negatively related to satisfaction.

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

- Finding that seniority was correlated positively with officers' satisfaction with disciplinary procedures and formalization.

- It appears that as experience in police work increases self-disclosure, group cohesion, and satisfaction decreases. Additionally, officers appear to have less formal/legalistic attitudes towards law enforcement.

- Indication that seniority is positively related to the use of discretion.

b. Socialization: Selection to Assimilation Into the Department

- Several studies have been conducted which examine the effect socialization has on cynicism. Three studies reported that cynicism decreased over time. Two studies indicated that during the first years of police work cynicism gradually increases, peaks at mid-career, and then decreases and levels off. Another study found that recruits entered the department highly motivated and committed, but this decreases over time.

b. Socialization: Selection to Assimilation Into the Organization

- The literature reviewed is silent on this variance.

Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

- Indication that socialization of police negatively affects professionalism and employee coordination and control. Another study found no relationship between seniority and employee coordination and control (i.e., officer perceptions of supervisors and discipline).

- Several articles examined the relationship between the number of years of service and individual performance. These studies presented discrepancies in the results presented (i.e., a negative relationship, a positive relationship, and a third study which reported no relationship between seniority and individual performance).

20. Internal Stratification: Education

- Finding that increased education is positively correlated with individual performance (performance was measured by the number of injuries, accidents, departmental performance evaluations, disciplinary action, etc.). It should be noted that one study in nine reported a negative relationship between education and individual performance.

20. Internal Stratification: Education

- Indication that education is related to employee adaptation (personality/attitudes).

- The literature suggests that length of education has a positive influence on group cohesion in the organizational unit, and on the individual's professional orientation to the job. The type of educational training received has no relationship to group cohesion and professional orientation.

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Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|

Police Studies

- One study found a difference in the personality of trained recruits with a college education and those without such an education. Another study found that a higher educational level was positively associated with officers being more open and less dogmatic. Further, it appears that officers with more education tend to have less formal/legalistic attitudes toward law enforcement.

- Strong indication that education is not related to job satisfaction. One study did find that more highly educated officers tend to show more job satisfaction than less educated officers.

- Three studies found that there was no relationship between education and cynicism. Another study indicated that more highly educated officers tend to be more cynical than less educated officers.

- Indication that education is correlated positively with advancement (i.e., the officer's promotional rank score) and negatively with recruitment for lateral entry above the rank of patrolman.

Exhibit C (continued)

| Police Studies | Non-Police Studies |
|---|---|
| • The literature suggests that higher education is not associated with professionalism or the use of discretion. | |
| • It appears that education is not related to employee reactions to the use of either monetary (salary) or normative incentives. | |
| • The size of the department does not appear to be related to educational attainment. | |
| • One study reported that black officers tended to be more highly educated than white officers. | |
| • Seniority appears to be negatively correlated with education. | |

## Inferential Findings

The second phase of analysis consisted of an examination of the sampled literature for this conceptual cluster to produce a knowledge base regarding internal structural differentiation within police organizations. The following pages contain the findings concerning the knowledge base strengths and corresponding weaknesses. This knowledge is based on police and general management research studies which were found to be methodologicaly sound and produced findings that could be transferred from one organization setting to another. An assessment is made as to the state of the art and key propositions are posited for further consideration.

A review of the literature pertaining to internal structural differentiation revealed four knowledge base components. These are:

1. Functional and Departmental Specialization in Police Organizations.

2. Technological Complexity and its Implication for Police Organization and Management.

3. An Examination of Professionalism in Police Organizations.

4. Stratification of the Work Force in Police Organizations.

### Functional and Departmental Specialization in Police Organizations

An important managerial function is determining the necessary amount of specialization among workers and units in the organization. Specialization is concerned with both division of labor in specific occupational work activities (i.e., functional specialization) and the distribution of work among major sub-units within the organization (i.e., departmental specialization). Using these two variables, organizational theorists and social scientists alike have measured structural characteristics of organizations.

The literature reviewed on this topic has strong implications for the police executive who, faced with continuing increase in crime, is wrestling with the possible alternative of adopting greater specialization to focus police resources specifically on crime. There is considerable debate on this issue in the law enforcement community.

According to the National Advisory Commission on Criminal Justice Standards and Goals (1973), greater operational specialization is one alternative in dealing with the problem of increased criminal activity. The Commission warns that, "when the chief executive of the police agency believes criminal activity within the community requires specialized deployment of police resources, he should clearly identify the problem and assess the impact of specialization on the agency" (1973:207).

Further, there are times when specialization of police service has advantages over generalization. Eastman and Eastman (1969) have offered several reasons why law enforcement agencies may choose to become more specialized. They state specialization has the potential for:

1. A more precise placing of responsibility.

2. More intensive training.

3. A concentration of experience to develop and maintain skills.

4. Development of a high level of esprit de corps in specialized units.

5. General public or special interest support.

Despite the potential advantages of specialization, however, several studies (Elliot, O'Conner, and Sardino, 1970; Schwartz and Clarren, 1977; Elliot, 1978; and Wilson and Boland, 1978) take issue with this position, noting that specialization does not improve organizational effectiveness (e.g., arrest/clearance rate). Elliot, O'Conner, and Sardino (1970) and Elliot (1978) evaluated the use of crime control teams in Syracuse, New York, as an alternative method of combating crime. In both studies they found the team approach to be a more effective method of increasing clearance rates than conventional police operation procedures, generally accentuating specialization of tasks. Similarly, Schwartz and Clarren (1977) found that greater generalization in police tasks was associated with increased effectiveness in Cincinnati, Ohio. Wilson and Boland (1978), moreover, show that police agencies that deploy a greater proportion of officers in patrol-related units (non-specialized) may increase effectiveness.

The police literature also provides limited preliminary empirical evidence as to the effect both departmental and functional specialization have on officer performance, officer level of satisfaction with their job, and public support of policing. Cohen (1978:50), in his study of commanding officers in the New York City Police Department, found that the length of time an officer spent in different specialized assignments (i.e., operations, staff, plainclothes division, and detective investigation) did not appear to improve his/her future performance as a commander. An experimental study of team policing in Cincinnati suggested that a decrease in functional

specialization following the "generalist" model of policing was not related to increased satisfaction of the officers or public support, although the generalist concept was not fully implemented under team policing (Schwartz and Clarren, 1977).

Greater specialization as effected by increased integration of civilians into policing has frequently been encouraged as a means of differentiating work tasks (President's Commission on Law Enforcement, and the Administration of Justice, 1967; Eastman and Eastman, 1969; National Advisory Commission on Criminal Justice Standards and Goals, 1973). Proponents supporting the movement toward civilianization argue that bringing civilians into police administrative and management positions will make police agencies more responsive and thus improve the organizational capacities of these agencies. Further, they suggest that civilians will free up sworn officers to concentrate on crime prevention and detection (Greisinger, Slovak, and Molkup, 1979:107-108).

Odoni (1977:137) found that the hiring of civilians to perform primarily clerical tasks has been used as a relatively inexpensive means of increasing the availability of sworn personnel for patrol duties. He points out that this savings many times is counteracted by the trend toward appointing more supervisory personnel.

Pursley (1976) hypothesized that "non-traditionalist" police administrators would employ a higher percentage of civilians than "traditionalist" police executives. However, the data did not support this and indicated that "traditionalist" police executives hired slightly more civilian employees than the "non-traditionalist" executives. Tien and Larson (1978) found that the sworn police officers feared encroachment when civilians were used as paraprofessionals to respond to calls for service. The civilians were also dissatisfied with their pay and lack of job security. Another study which examined the issue of civilianization and more specifically the impact civil service systems have on police administrators, found that where civil service systems took on a policy-making role, the proportion of civilian paraprofessionals in the agency was higher. When civil service commissions exhibit a regulatory role, the proportion of civilians is lower (Greisinger, Slovak, and Molkup; 1979:108).

While considerable attention has been given to the use of civilians in police agencies, this topic is not addressed in the general management literature. Despite this void a substantial amount of knowledge can be gleaned from the non-police literature.

Many of the studies reviewed provide a clear understanding of the effect that organizational size has on the degree of specialization. Research results indicate that larger organizations tend to have more differentiated work activities, as well as increased numbers of work groups, divisions, departments, and other organized subunits (Meyer, 1968; Pugh, Hickson, Hinings, and Turner, 1969; Blau and Schoenherr, 1971; Child, 1973b;

Heydebrand, 1973; Comstock and Scott, 1977; and, Beyer and Trice, 1979). Moreover, Heydebrand (1973:168) suggested that functional specialization varies directly with size up to a certain organizational size. When this point is reached, functional specialization levels off.

Beyer and Trice (1979) go one step further and differentiate between routine and non-routine organizations.[29] Their findings can best be illustrated by the following diagram (Figure 9):

Figure 9

RELATIONSHIPS BETWEEN ORGANIZATIONAL SIZE AND
FUNCTIONAL SPECIALIZATION IN ROUTINE AND
NON-ROUTINE ORGANIZATIONS

In Routine Organizations:



In Non-Routine Organizations:
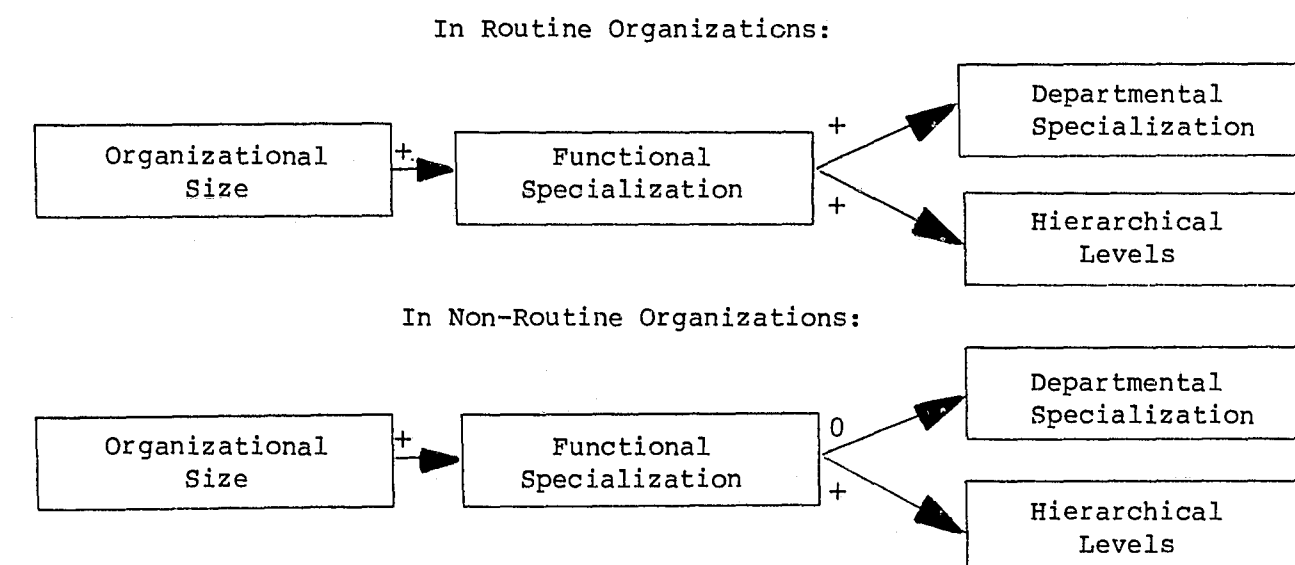


Meyer (1968) also examined the relationships between organizational size and division of labor and found that when size was held constant, functional specialization was inversely related to vertical differentiation. This suggests that division of labor will be less pronounced to organizations with hierarchical structures.

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[29] The authors classified organizations by the routineness of tasks performed.

Further examination of the effect structural differentiation has on internal coordination and control mechanisms of the organization reveals that division of labor has a strong positive effect on the relative size of the total administrative/management complement (Rushing, 1967). This conclusion was substantiated by Blau and Schoenherr (1971) who found that more differentiated organizations were more likely to use administrative staff to handle specialized problems.

What implications do these results have for law enforcement? It would appear that larger police departments would have more specialized work units. Yet the police literature sampled and reviewed, with one exception (Browne, 1974), has not examined the relationship between size and degree of specialization. In the study by Browne (1974) police chiefs were asked how they would use additional funds if they were made available. Police executives from larger departments reported they would acquire more specialized personnel and technical equipment, while police executives in smaller departments reported they would place more officers on the street and purchase standard equipment. Certain implications can be derived from the literature reviewed on functional and departmental specialization:

- There is continuing debate among law enforcement officials concerning the advantages of increased or decreased specialization of police services. Disadvantages of increased specialization are thought to be: (a) an involvement by an office in his/her new duty and a neglecting of other responsibilities; (b) a resentment on the part of officers to carry out other responsibilities considered to be outside the realm of his/her specialized expertise; and (c) a tendency on the part of patrol officers to rely on specialists to perform certain tasks not considered part of his/her specialized responsibilities. Those who advocate specialization suggest it allows for a more precise placing of responsibility, more intensive training, and as a result the development of valuable skills and knowledge. The merits of these positions, however, cannot be substantiated by this present study and form an important topic for further research.

- The use of civilians within police departments remains a controversial issue. The literature suggests that management is often motivated by a desire to use a less expensive labor force for clerical tasks which will thereby allow more sworn officers to be on the streets combating crime (Feuille and Juris, 1976). Others, however, point out that this savings is often negated by a tendency to promote officers to supervisory

positions. Many officers and police unions have resisted increased civilianization because they fear civilian employees will begin replacing their jobs. It appears to be difficult to assess the benefits of civilianization from the literature reviewed. Additional studies must be conducted examining police departments which rely on civilian employees to perform tasks otherwise performed by sworn officers. This research should determine the effect, if any, this use of civilians has on organizational effectiveness.

- Organizational size appears to be related to the degree of specialization in the general management literature. Additional research should be conducted to examine this relationship in police organizations.

## Technological Complexity and its Implication for Police Organization and Management

This project has only identified one study on technological complexity in the police management field. Therefore, any knowledge on this topical area must be gained from the general management literature. This literature, on the other hand, offers knowledge which can be generalized and transferred to law enforcement.

Several organizational theorists (Thompson and Bates, 1957; Udy, 1961; Inkson, Pugh, and Hickson, 1968, 1970; Pugh, Hickson, Hinings, and Turner, 1969; Child 1973a, 1973b; and Comstock and Scott, 1977) have attempted to examine the relationship between organizational structure and the context in which it functions. Thompson and Bates (1957) pointed out that technological development is accompanied by a corresponding increase to the complexity of the social organization. Child (1973a:168) noted that there has been a continuing debate as to what the major influence on organizational structure is. He states that some individuals (Weber as enumerated in Garth and Mills, 1958), and Pugh, Hickson, Hinings, and Turner, 1969) have argued that the size of the organization is the single greatest determinant of structure, while others (Woodward, 1965; Thompson, 1967; and Aldrich, 1972) contend that task and technology are more salient influences on organizational structure. Hall (1972:139) states that size must be examined in conjunction with technology and environmental factors when examining organizational structure.

Based on his own work and that of others, Child (1973b) proposed a model organizational structure which incorporates many of these interorganizational determinants, as well as intraorganizational influences. This model is depicted in Figure 10. It should be pointed out that this model

Figure 10

THE RELATIONSHIP OF ORGANIZATIONAL CONTEXT TO
ORGANIZATIONAL COMPLEXITY AND BUREAUCRATIC CONTROL[a/]



CONTEXT                          COMPLEXITY                    BUREAUCRATIC CONTROL

Size of organization

Integretation and automation
of technology

Number of operating sites

Specialization of roles

Specialization of
functions

Level of specialist
qualifications

Decentralization

Formalization:
Standardization
of procedures

Documentation

ENVIRONMENTAL
CONTEXT
Degree of contact
across organizational
boundaries

Size of owning
group

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[a/]This figure was taken from Child's (1973b:184) study of 82 business organizations.

analyzes the influence of numerous variables other than technology on structure. The general management literature, however, does not reveal a consensus as to the ultimate effect of technology. Therefore, there is a need to consider influences of technology in conjunction with other variables.

His works strongly suggest that technological complexity is positively related to increased functional and departmental specialization within organizations, and that size is also a predictor of such specialization. This finding was further supported by Inkson, Pugh and Hickson (1968, 1970) and Pugh, Hickson, Hinings, and Turner (1969). In addition, Pugh, Hickson, Hinings, and Turner (1969) found that technology was an indicator of the extent of decentralization in the decision-making process. Furthermore, managers in organizations with a high degree of technology tend to see themselves as having less authority (Inkson, Pugh, and Hickson, 1968:11). These researchers attempt to explain this by stating that, if the organizational environment is "placid" and stable, there may be less reason to delegate authority in order to ensure "a rapid response to changing circumstances." Complex organizations, however, tend to produce less stable conditions for such managers.

The reviewed literature indicates that technological complexity is positively related to increased internal structural differentiation, at least in terms of specialization. What organizational and administrative implications do these findings have for the police executive who is comtemplating the acquisition of new and advanced equipment such as computers to automate record-keeping and dispatching functions as well as interagency communication capabilities? The introduction of greater technology in policing may lead to increased functional and departmental specialization, with a concurrent decrease in hierarchical structural levels. Further, this change may result in decreased authority for managers and a greater structuring of work efforts in sub-units. Also there will be decreased hierarchical authority because of the need to employ supervisors to manage work efforts in differentiated units. The ultimate effect on such increases in technology, of course, can only be confirmed through empirical research, but it is conceivable that some of the observations in general management and social science disciplines may be applicable.

The police executive must also examine the effect advanced technology has on individual officers. Billings, Klimoski, and Breaugh (1977) attempted to examine the effects that massive changes in technology had on certain job characteristics in a hospital dietary department. The authors found that increased technology resulted in a decline in task variability while task interdependence increased. There was a subsequent decline in individuals' perception of their job's importance. This feeling may have been due to the fact that many of their duties were replaced by automation. Despite these changes, there were no changes in overall individual performance or in employees' relationships with co-workers and/or supervisors. The study conducted by Billings, Klimoski, and Breaugh (1977) would suggest that police

administrators give careful consideration to the impact of increased technology on employees' morale and perceptions of the worthiness of their jobs.

In another study, Blau and McKinley (1979) hypothesized that the use of computers was positively related to innovation among architecture firms. Research results, however, indicated that the use of computers was not significantly associated with increased levels of innovation.

In summary, the general management literature provides law enforcement officials a knowledge base concerning the effects of increased or decreased technological development. Several propositions can be posited which have relevence for police organizations, as well as other organizations and industries.

1. As an organization becomes more technologically complex, it becomes more specialized.

2. Higher technology is associated with a decentralization of decision-making to specialized, differentiated work units or positions.

3. A change in technology may result in a decline in individuals' perceptions of their job's importance.

Notwithstanding the knowledge which has been gained, Comstock and Scott (1977) warn that there still is confusion and discrepency about the way technology is defined and measured. These authors state that some theorists conceptualize technology as the nature of the materials used, while others focus on operations employed. Others consider the knowledge required in the work process, while still others concentrate on different phases of the work process (1977:118).

These variations in definition of technology may ultimately affect the results of research and hence the knowledge to be generated from such research. It is important, therefore, to consider these variations in future research efforts.

## An Examination of Professionalism in Police Organizations

A somewhat different aspect of internal structural differentiation is the scope of individual and/or organizational professionalism. This section examines the differences in the way professionalism is conceptualized in both the general management and police field, the relationships, if any, that exist between professionalization and other key organizational and environmental variables, and finally the implications which can be drawn from reviewed research.

It can be said that the study of professionals in organizations begins with the contradictions which appear between bureaucracy and professionalsim. A bureaucratic organization, as defined in the classic works

of Max Weber (Gerth and Mills, 1958) is a hierarchically structured organization wherein work is rationalized and performed according to procedural specifications. Authority is delegated from the top downward, clearly delineating those activities for which the subordinate is responsible.[30] A professional organization has been defined in the general management literature as a "general type of work organization that is designed to achieve complex goals and is one in which professionals specify the goal and task structures, direct and carry out productive activities on the basis of special knowledge, and control the necessary resources." (Heydebrand and Noell, 1973:296). Professional organizations exhibit a score of key attributes including: expertise in a body of specialized knowledge; discretion and autonomy; professional standards of workmanship and ethical conduct; and an orientation toward service (Merton, 1957; Vollmer and Mills, 1966; Blau, 1968). In theory, then, there is an obvious potential for discord when some or all of these factors come into conflict with the discipline required by bureaucratic authority.

What knowledge can be derived from empirical research concerning this situation? The professional/organizational conflict, while variable in the degree to which it is felt by any given individual is, nevertheless, a real one. This was found to be true in several studies which have concluded that professionalization and bureaucratization are inversley related (Stinchcombe, 1959; Blau, 1968; Hall, 1968; and Heydebrand and Noell, 1973).

Hall (1968) distinguished between structural characteristics of the organization (e.g., formal education and entrance requirements) and attitudinal aspects (e.g., reference group orientation, service ideal, and self-regulation). He found that structural and attitudinal aspects of professionalism do not necessarily vary together, although highly professional organizations tend to have both aspects present. The strength of professional attitudes seems to be based on the socialization process which takes place during initial training and in the work itself. Hall's study revealed that highly professionalized groups are found in settings which are less bureaucratic (1968:504). His research suggests that more professional groups do not need the same kind of control as less professional groups in dealing with problems of decision-making. Indeed, he hypothesizes that the presence of more bureaucratic systems for the less professional groups may deter further professionalism.

Research has shown that there is variation in levels of commitment to the profession as opposed to the organization among different workers. Certain types of workers, among them university professors (Lewis, 1967),

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[30] The subject of bureaucratic control and coordination is examined in greater depth in Chapter V, "Organizational Coordination and Control."

scientists and engineers (Sheldon, 1971; Miller and Wagner, 1971), and junior college teachers (Thornton, 1970) appear to be more committed to the profession than to the organization. This is not to say that professionals employed in professional organizations, as opposed to classic business or educational bureaucracies, are able to avoid this conflict of loyalty. To the contrary, there may be just as much "bureaucracy" in the professional organization as in the large school or corporation (Hall, 1967). This situation, in turn, leads to varying degrees of perceived autonomy by the professional (Engel, 1970). Nevertheless, Heydebrand and Noell (1973) find that in organizations where the bureaucratic-hierarchical structure was staffed by the same professionals, who also constituted the "production component" of the organization, there was less conflict.

The factors propelling one professional to identify predominantly with the profession as opposed to the organization are many. Certainly the structure of the immediate work setting is one. Professional departments or divisions in larger bureaucracies can organize themselves differently; some can be as internally bureaucratic as the larger organization, while others can emphasize peer-group collegiality wherein the department head serves as a "first among equals." When this latter situation occurs, the professional employee tends to identify more with the organization than with the profession (Hill and French, 1967), and may well feel the professional/organizational conflict less intensely, if at all (Thornton, 1970). Another reason why professionals tend to identify with their profession rather than with the organization appears to be related to the degree of their involvement with the organization and their immediate co-workers.

Professional employees who interact socially with their organizational colleagues tend to identify more with the organization (Sheldon, 1971) than do those who avoid office sociability. Yet another factor is "investment," the length of time already committed to the organization by an employee. At the bivariate level of analysis, the research results are mixed; some have found a high level of investment associated with a high level of organizational commitment (Sheldon, 1971) while others have found the two essentially unrelated (Miller and Wager, 1971). Controlling for professional commitment helps to resolve the dilemma; that is, high investments are more strongly related than are high levels of social involvement to organizational commitments.

What impact does the commitment choice of the professional in the bureaucracy have on his/her performance, satisfaction, and/or productivity? The research results seem consistent on these questions. Those who have chosen the organization as the main focus of their commitments are viewed as more promotable by their supervisors (McKelvey, 1969) and are less likely to leave the organization even for a more prestigious job elsewhere (Lewis, 1967). Those with the best of both worlds—who have made the commitment to the organization and who work in peer-groups, collegially-organized offices—tend to feel higher levels of satisfaction with their jobs

(Hill and French, 1967; Aram, Morgan, and Esbeck, 1971). An increase in job satisfaction may be due, in part, to the positive relationship which was found between task variability and professionalism (Alderfer, 1967; Hage and Aiken, 1969; and Comstock and Scott, 1977).

Employees who were committed to both their organization and profession appeared to have more contact with other organizations in their environment (Baty, Evan, and Rothermel, 1973; Child, 1973b). However, those same employees are not necessarily more effective in their job performance than anyone else in the organization (Aram, Morgan, and Esbeck, 1971); in fact, they may even be less productive than their more professionally-oriented colleagues (Hill and French, 1967).

These results may be summarized in the form of a causal model as depicted in Figure 11 below:

Figure 11

RELATIONSHIPS OF ORGANIZATIONAL
COMMITMENT TO MANAGERIAL/ADMINISTRATIVE FACTORS
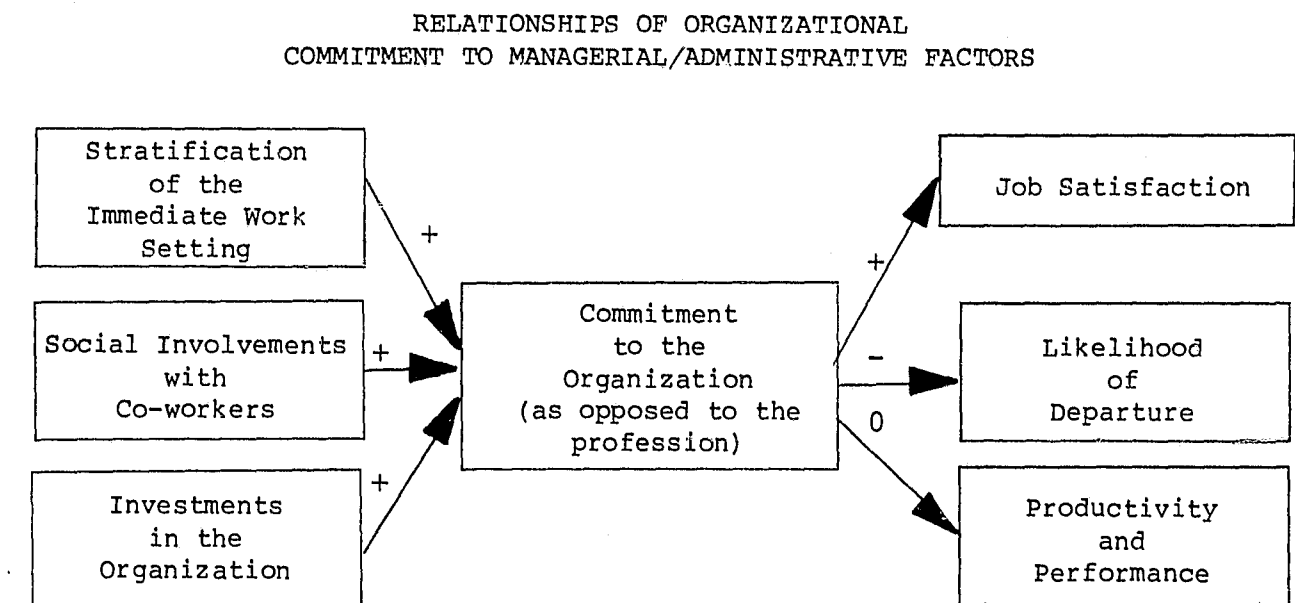


In narrative form, the empirical research suggests that:

- Commitment to the organization and to the profession is more or less mutually exclusive.

- Commitments to the organization take precedence when the immediate work setting for the professional is relatively collegial in structure and sociable in climate.

- Commitments to the organization take precedence when, controlling for professional orientations, the employees are relative newcomers to or relative veterans of the organization.

- Commitments to the organization result in higher levels of job satisfaction and lower likelihoods of departure for alternative jobs.

- Commitment to the organization is, at best, unrelated to performance, and may actually hinder it.

In summary, the general management literature has shed considerable light on the nature of individual and organizational professionalism. Professionalization of the labor force has increased markedly over the years. Hall (1968:490) accurately noted that occupational groups which have held the status of "marginal professional" are intensifying their efforts to be acknowledged as full-fledged professionals.

What effect has this movement toward professionalization had on law enforcement? The police professional model is largely the result of the work of August Vollmer, Bruce Smith, and O. W. Wilson. The model, according to Goldstein (1977:2) is based on a commitment made in the early history of policing to organize police agencies along military lines and, further, to insulate police administrators from the influence of partisan politics. The police professional model, somewhat different than the non-police model, places primary emphasis on efficiency as its ultimate goal. This is to be achieved by centralized control, distinct lines of organization, better use of police personnel, improved training and education, and increased use of technology and equipment (Goldstein, 1977:2). Under Vollmer's concept of police professionalism, a new breed of police administrator who possessed a high level of managerial skills emerged in the 1930's. These administrators created the professional model which has been upheld until recently as the solution to the problems of police (Goldstein, 1977:228).

Several studies have been conducted which examined the effect of professionalization on the officer, as well as the police department. Realizing public support is vital for effective law enforcement, Cooper (1974) found police officers have become increasingly concerned with their occupational status and public image. Cooper believes that officers are responding to this concern by attempting to become more professional (e.g., continuing education and training, establishing minimum standards, etc.). In addition, Cooper found that police administrators were still moving in the direction of greater efficiency and productivity as evidenced by their tendency to adopt certain managerial techniques and models from business and industry (1974:28). Thus, it can be seen that while the "professional model"

has been defined somewhat differently in the police and non-police literature, there still exist underlying conflicts between movements toward individual professionalism and the efforts to retain bureaucratic structures. Ashburn (1973) pointed out that while police officers are asked to act in a professional manner, their autonomy as a profession is challenged by bureaucratic review and change.

Much of the police literature does not provide a clear definition and measurement of professionalism. Rather, several researchers have tried to define elements of professionalism in organizations. Academicians in police science have attempted to operationalize and measure police professionalism. In doing so, several have failed to use well-defined empirical methods (Wilson, 1968; Carlson, Thayer, and Germann, 1971; Pursley, 1974, 1976; Reppetto, 1975) and instead have equated non-traditional, innovative, and/or legalistic departments with professionalism. This may possibly be a faulty assumption. Professionalism was found to be positively related to increased arrest rates (Wilson, 1968; Reppetto, 1975) but not related to organization change (Pursley, 1974). The results may be questioned in light of the operational definition of professionalism.

Other researchers (Miller and Fry, 1976a, 1976b; Lotz and Regoli, 1977; Poole and Regoli, 1979) have endeavored to empirically measure the level of professionalism in the police occupation. Miller and Fry (1976b) validated a five-dimensional scale of professionalism developed by Hall (1968) and subsequently revised by Snizek (1972). They found the following five dimensions of professionalism to be applicable for police:

1. Identification with a professional reference group.

2. Public service orientation.

3. Autonomy.

4. Belief in self-regulation.

5. Sense of calling to the field.

Lotz and Regoli's (1977) study of 324 police officers showed that those officers who scored high on the Hall-Snizek scale tended to be less cynical than their colleagues. Using the same scale, Miller and Fry's (1976a) study indicated that increased education was not related to an officer endorsing a professional model and the Poole and Regoli (1979) study indicated that the socialization process appears to affect negatively individual professionalism.

In conclusion, it appears, based on the literature reviewed for this study, that many individuals have become disillusioned with the original conception of police professionalism (Goldstein, 1977). This may be partially due to ever-increasing crime rates and the fact the model may be contributing to an impersonal kind of policing. As a result, citizens' evaluation of the

police have been low (Chackerian and Barrett, 1973; Chackerian, 1976). Despite these problems, the literature suggests the following:

- There is a difference in the way the "professional model" is operationalized in the general management and police disciplines. The former is concerned with developing expertise in a body of knowledge, discretion and autonomy, professional standards, and ethical conduct. The latter, police professionalism, relates more to a managerial model which emphasizes centralized control and clear-cut lines of organizational authority and responsibility.

- A highly bureaucratic orientation to coordinating and controlling employees may be problematic for individuals in the organization who consider themselves to be professionals.

- Police departments which adopt a professional identity based on centralized control and clear-cut lines of authority tend to have higher arrest and clearance rates than those which are more traditional.

## Stratification of the Work Force in Police Organizations

The final area of knowledge regarding internal structural differention within police agencies focuses on stratification according to individual characteristics. Contrary to previous knowledge areas, this is the first area where virtually all available knowledge for this project comes from the police management literature. This may be due, in part, to the increasing interest police administrators have placed on the role of women in police work, racial composition of police departments in light of increased racial tension in the community, and higher education. Interestingly, based on the studies reviewed in the general social science area, organizational theorists did not conduct extensive empirical research on the impact of women and minorities in the organization.

The pages which follow are separated into four subsections for each of the stratification variables: sex, race, seniority, and education. A discussion of major findings and propositions follows these subsections.

### Sexual Stratification.
Very few studies were identified and reviewed analyzing the role of women in policing, although certain studies such as the research by Elmer (1978) begin to offer some explanation for female incentives in joining the police force. She found the two primary reasons to be salary and the opportunity to help others. Male officers tended to place more emphasis on job security than female officers did.

A study comparing leadership strength of women police executives with males was conducted by Price (1974). She found that the sampled women police executives as a group displayed more strength in leadership-associated personality traits than male executives as a group. Limitations to this study, as noted by the author, were the small number of police agencies sampled and the small number (N=26) of women executives within these departments. This is a fairly common problem in the literature on sexual stratification and probably one reason why there is so little research on the topic.

In a study examining the impact civil service systems have on police administration, Greisinger, Slovak, and Molkup (1979) found that police departments with a higher proportion of female detectives had higher clearance rates of Part I offenses, although the proportion of the total number of women in the department had no effect on clearance rates. They also found that civil service commissions exhibiting a regulatory role by inhibiting the inclusion of females and minorities in sworn positions indirectly constrain police effectiveness and efficiency (1979:132).

The sampled non-police literature offers little insight into the effects that sexual stratification has on the organization. One sampled study attempted to see if sex had any effect on the employees' commitment to the organization in Japan (Marsh and Mannari, 1977). They found that women were more likely than men to leave the organization. The reason most women gave for leaving was marriage or childbirth. Smith (1979), however, found that sex had almost no relation to turnover. She did find a greater concentration of men, rather than women, in occupations with greater advancement opportunities.

There is very little in the form of knowledge base strengths which can be deduced from these studies. Certainly there is a need for additional research in policing to explain further the effects of hiring women. Many departments have been compelled to hire greater proportions of females due to affirmative action programs. This increase in the number of female officers will accommodate additional research as larger samples of women will be present in police organizations. At the current time, as based on the literature reviewed for this study, however, there is a void in the literature concerning the role of women in policing.

### Racial Stratification.
The knowledge to be derived on this topic is drawn solely from the police management literature. The general social science literature reviewed for this study did not examine the effects of racial stratification on the organization. In the police field, the racial composition of the police department has become an increasingly important issue in cities nationwide. There appears to be two general viewpoints on this topic. There are those who feel that minorities need to be hired in police departments in proportion to the number of minorities in the community. Proponents of this viewpoint believe this will enhance police community relations, thereby increasing police effectiveness. Those opposed to this philosophy advocate professionalism as the way to resolve any police-

community relations problems. They feel that a "good policeman" is good regardless of race, color, or creed (Kelly and West, 1973).

Some of the available information on racial stratification relates to the role of the black police officer as compared to the white officer. Other studies have attempted to focus on the effects racial stratification has on performance, advancement, and employee adaptation. Bannon and Wilt (1973) conducted a study which examined the role of the black police officer in Detroit, Michigan, and found that black police officers felt they would develop a greater rapport with black citizens because they better understood the community. Unlike the findings of Alex (1969), Bannon and Wilt did not find that black officers expressed a loss of identity with other blacks as a result of their jobs.

Black and white police officers were found to have differences in their value system (Teahan, 1975). In a study conducted by Rokeach, Miller, and Snyder (1971) and Teahan (1975), differences were found in terms of perceived equality. White officers did not feel that black-white problems were as important as the black officers did. Over an 18-month period, white officers ceased to feel police-community relations were important and believed more than ever that separate police associations and more segregated duty might be the best course of action (Teahan, 1975:53). The black officers sampled also tended to feel the same way and further believed that white officers were receiving preferential treatment. Importantly, the author notes that the findings of this study are not generalizable beyond the city for which the study was conducted. Only 20 per cent of the officers sampled for this study were black and, therefore, the results should be treated with caution.

Despite these methodological problems, it appears from the literature that racial stratification could cause a lack of cooperation and feelings of animosity among police officers. Such a situation could influence not only how officers might handle calls for service in the community, but also how they would respond to an emergency in which another officer's life is threatened.

Blacks tend to become police officers for different reasons than whites do. Kelly and West (1973) found that black officers displayed more of "police" or social service orientation (i.e., desires to be involved in the community, chance to work with people, challenging and exciting work) while white officers had more of a "civil service" orientation (e.g., emphasis on job security, good salary, and benefits). Another study condcted by Hunt and Cohen (1970) found similar results. These authors interviewed white, black, and Puerto Rican youth who were applying to become police officers for the New York City Police Department. Results indicated that black and Puerto Rican youth stated they wanted to become officers because of the service aspects the jobs offered rather than any financial rewards. Alex (1969), on the other hand, found that the majority of police officers he interviewed chose a law enforcement career for economic reasons, while only a small minority of black

officers reported they joined simply because they really wanted to become policemen. The conflict in these findings suggests a need for closer and more careful examination of what influences an individual to become a police officer and what effect, if any, this has on the officer's level of satisfaction, commitment, and overall performance.

What knowledge can be deduced from the literature on the effect racial stratification has on officers' performance and organizational effectiveness? In a study of the impact of civil service systems on police departments, Greisinger, Slovak, and Molkup (1979) found a high correlation between the proportions of minorities and women officers in the police agency and effectiveness of the department in the apprehension of offenders. Cascio (1977) found that racial stratification had no effect on police performance, but that higher levels of education for both black, white, and Spanish surnamed police officers was associated with improved job performance as measured by the number of injuries, number of disciplinary actions, number of physical force allegations, etc.

In a longitudinal study of 1,915 New York City Police Department officers, Cohen (1970) found that black police officers received more complaints than white officers who, in turn, had more complaints than Puerto Rican officers. However, if the charge was brought to trial, ethnicity did not affect the final disposition.

These data were subjected to further analysis by Cohen and Chaiken (1972) who also found that black officers had more disciplinary charges than white officers, but they did not differ from white officers on the number of civilian complaints, allegations of harassment, or criminal charges. These authors also found that black officers in New York City did not progress through civil service ranks as quickly as white officers, although they did progress into and through the detective division better than white officers.

What implications can be drawn from these findings? First, there appears to be a lack of conclusive findings about the impact of racial stratification. Many of the studies lack methodological and statistical sophistication and, therefore, the results should be viewed as tentative.

Secondly, despite the above-mentioned problems, some of the studies present a gloomy picture of the effects of racial stratification on officer cohesian. Greater stratification seems to be associated with less group cohesion (Juris and Feuille, 1971; Teahan, 1975) within the police department, thereby promoting separate police associations. The impact racial composition has on performance is inconclusive. There appears to be discrepancies in the findings, suggesting the need for additional empirical research. Performance has been conceptualized in different ways: as individual compliance with rules and procedures and with effectiveness in apprehensions. The preliminary findings cited above suggest that increased numbers of minorities may negatively affect one such criteria (compliance to rules) while positively

affecting the other criteria (apprehension). Will this inverse relationship hold in future research? Further, what effects, if any, does increased proportions of minorities have on the police ability to acquire information from the community? These questions cannot be answered based on sampled research.

Seniority. What effect does tenure, or the length of time an officer has worked on the force, have on officer performance, attitudes and/or values toward the job? The police literature offers knowledge-based findings upon which one can begin to answer this question. It also provides information about the process by which officers may become socialized into prevailing police value patterns. Because the impact of tenure and socialization is critical to the functioning of the police department, it is important to assess its effects on the organization and management of the police agency. Van Maanen (1975:207) defines organizational socialization as "the process by which an organizational member learns the required behaviors and supportive attitudes necessary to participate as a member of the organization." He notes that studies in the general management literature (Herzberg, Mausner, Peterson, and Capwell, 1957; Schein, 1965, 1971; Berlew and Hall, 1968; Vroom and Deci, 1971) have found that early organizational learning is an indication of one's later job-related attitudes and behaviors.

Using both survey and participant-observation techniques, Van Maanen (1975:220-224) found that police officers progressed along a socialization continuum which was characterized by "don't make waves" and "we're in the same boat" philosophy. He suggests that socialization occurs in four stages:

1. Entry - this includes the police recruitment and selection process.

2. Introduction - this occurs at the police academy. Early stages are marked by rapid attitudinal changes; i.e., there is a drop in both motivation attitudes and organizational commitment.

3. Encounter - this is the officer's first encounter with the job and his field training officer. During this period the new officer learns what attitudes and behaviors are acceptable.

4. Metamorphosis - by the end of six months the officer's job-related attitudes were found to be closely paralled to those of the more experienced officers.

It would, therefore, appear that the new recruit goes through some dramatic changes during his/her first six months on the job. Poole and Regoli (1979) investigated changes in professionalism and professional commitment

during this same time frame. They found a precipitious drop in all levels of professionalism and concluded that something during the recruit's initial work socialization was affecting all aspects of professionalism.

Yet, there are others who have questioned whether police officers' values and attitudes are shaped by their background characteristics rather than a socialization process. Some research, such as that performed by Rokeach, Miller, and Snyder (1971) concluded that certain value orientations have predisposed some inividuals to select police work and that socialization, if it occurs at all, comes about in a slow and gradual way. These researchers found police officers have value systems that are different from other groups and that their values are also a function of personality predisposition; that is, police are selectively recruited and their values predispose them toward a career in law enforcement.[31/]

This is contrary to the findings of McNamara (1967); Bayley and Mendelsohn (1969), Parker and Roth (1973), Teahan (1975), Van Maanen (1975), and, Poole and Regoli (1979). Teahan found that most of the police officers he interviewed felt the greatest changes in their values took place during the first year of duty. In a study conducted by McNamara (1967) experienced officers felt that they contributed more to the socialization of new officers, than their supervisors did. These same officers also felt that the training academy was not adequately preparing the police officer for his job and, instead, was offering an "unrealistic and/or impractical orientation."

Roth and Parker (1973) noted that police officers tend to change with experience but did not attribute these changes to a unique police personality. They found that, as experience in police work increased, officers tended to become "closed-mouthed" and cautious in their relations with others.

Similarly, Lefkowitz (1973) found that older officers seek less gratification from their job, feel that personal gratification is less important, and as a result are less dissatisfied with the extent to which their personal needs are met through the job. As expected, older officers were found to have lower levels of formal education.

Several investigators (Neiderhoffer, 1967; Wilt and Bannon, 1976; Lotz and Regoli, 1977) have attempted to examine the effects socialization has on an officer's level of cynicism. In his classic study of patrolmen in New York, Neiderhoffer found that cynicism was at its lowest when the recruit first entered the training academy; it peaked between 7 to 10 years of

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[31/]The concept of police personality is discussed in more detail in Chapter 6: "Informal Organizational Structure."

service, and cynicism declined thereafter.[32/]   Lotz and Regoli (1977:177) interpreted Neiderhoffer's results by saying that officers begin by accepting a somewhat idealized version of their work.  Through a socializing process, the officer learns how unrealistic his expectations were and becomes increasingly cynical.  As the officer realizes the scarcity of occupational alternatives and the benefit he will reap upon retirement, his cynicism diminishes and stablizes.

Lotz and Regoli (1977) attempted to replicate Neiderhoffer's study using a sample of 324 officers from 9 departments in Washington and Idaho. Like Niederhoffer, they found that cynicism peaks during mid-career and then tapers off.  However, Wilt and Bannon (1976) did not find that cynicism tapers off as the officer approached retirement.  Future studies which examine cynicism should also focus on structural characteristics which may impact cynicism and a corresponding lack of commitment.

What relationship does length of experience have on authoritaranism?  Several theorists have studied this, and again some of the results are conflicting and inconclusive.  Bayley and Mendelsohn (1969) found experienced police officers to be less authoritative, while McNamara (1967) found officers to have stronger authoritarian attitudes after one year of service.  Smith, Locke, and Walker (1967) discovered that older recruits were more authoritarian than younger recruits while Genz and Lester (1976) found that authoritarian attitudes did not change with the number of years of service in experienced policemen.  However, when comparing the inexperienced with the experienced municipal officer, Genz and Lester found the experienced officers were more authoritarian.

These results suggest that additional research needs to be conducted to understand fully the relationship of tenure to cynicism and authoritarian attitudes.  The impact training has on this process also should be investigated in subsequent studies.  Some of the literature reviewed thus far has suggested that police officers tend to become more cynical and less interested in their jobs after several years of experience.  What difficulties does this pose for supervisors who are responsible for carrying out disciplinary actions?  In a study conducted by the International Association of Chiefs of Police (1976) and later elaborated upon by Macfarlane and Crosby (1976), seniority was associated with an officer's understanding of, and satisfaction with, disciplinary procedures.  Fickenauer (1976), in a study of 209 police officers, found that a key factor in applications of discretion was the officer's amount of street experience.  Officers with more experience were less inclined to take formal action against individuals involved in

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[32/]For a more extensive analysis of cynicism, see Chapter VI:  "Informal Organizational Structures."

drunkeness, welfare fraud, prostitution, and juvenile offenses.  Finally, time and rank were not found to be related to performance in managerial positions (Cohen, 1978).

In short, there are too many conflicting findings concerning the impact of tenure on policing.  It can be concluded that socialization has an impact on police working relations and attitudes, but the precise nature of this relationship cannot be pinpointed based on existing research.

Educational Stratification.  More than a decade ago, the President's Commission on Law Enforcement and the Administration of Justice advocated raising educational requirements to the college level as a way of achieving more effective and fairer law enforcement (1967:653).  This was further reinforced by the National Advisory Commission on Criminal Justice Standards and Goals which set as an educational standard for the selection of police personnel that "every police agency should, no later than 1978, require as a condition of initial employment the completion of at least three years of education, and by 1982, the completion of four years of education at an accredited college or university" (1973:369).  Those who are in favor of higher educational standards suggest that a college environment produces less authoritative, more innovative and resourceful individuals capable of coping with problems more flexibly and with less need of supervision (Hudzik, 1978:70).

What knowledge does empirical research provide concerning the effects higher education has on individual performance?   Do better educated individuals make better police officers than less educated individuals? Several researchers have conducted studies which provide empirical evidence that educational level is positively related to performance, albeit these studies use divergent measures of performance (Cohen and Chaiken, 1972; Bozza, 1973; Levy, 1973; Cascio, 1977; Barry, 1978; Roberg, 1978; and Zelig, 1980). Bozza (1978) found a significant difference in education between high and low performers as measured by the number of arrests made.  Both Roberg (1978) and Zelig (1980) found support for the hypothesis that the higher the educational level of patrol personnel, the higher their job performance.  In these two studies, job performance was measured by supervisors' ratings.  Zelig, however, while finding a positive relationship, cautions that the effect active recruitment of college graduates on performance is tenuous at best, and suggests that the officer flexibility might make the difference (1980:100). Cohen and Chaiken (1972) report that officers with at least one year of college education were found to be very good performers.  These officers advanced through the civil service promotions more rapidly and had fewer citizen complaints.

Using somewhat different performance criteria, Cascio (1977) found that higher levels of formalized education were associated with fewer injuries, assault and batteries, disciplinary actions, sick times per year,

and physical force allegations (1977:90). However, the author did not find that such performance measures as job knowledge, judgment, initiative, dependability, demeanor, or attitudes were related to the amount of formal education. This finding raises the question as to what relationship job knowledge and skills have on typical performance measures. Cascio's study suggests that they may not be related.

In order to gain a more complete understanding about stratification by educational level, it is important to assess the effects educational attainment have on the individual adaptation to the organization and informal organizational structure. Lefkowitz (1973) found a positive association between higher educational attainment and increased job satisfaction and job involvement. However, this finding was not substantiated by research conducted by Miller and Fry (1976a), Weiner (1976), Griffen, Dunbar, and McGill (1978), and Slovak (1978). These authors found no significant differences in levels of satisfaction across educational levels.

Neiderhoffer (1967) predicted that a higher level of education would lead to less cynicism, yet the reverse was actually found. Similar studies by Regoli (1976), Weiner (1976), and Wilt and Bannon (1976) found no relationship between education and cynicism.

As previously mentioned, those who advocate higher educational standards believe these officers will be less authoritarian and prejudiced than their noneducated counterparts. Roberg (1978) was interested in examining the relationship between higher education and personality systems. He found that the higher the educational level, the less dogmatic (i.e., more open) the individual's belief system, a finding later confirmed by Zelig (1980). Officers who had a higher education were also found to have less formal attitudes toward law enforcement (O'Neill, 1974), suggesting that they would be more likely to use means other than arrest to handle a situation.

Despite these positive benefits of increased police officer education, there are several pragmatic conditions discouraging increased educational attainment for police officers. Proponents of increased education are faced with the problem of attracting and retaining qualified individuals with a college education. There is widespread resistance to lateral entry (Eastman and McCain, 1973), and college-educated recruits are rarely monetarily compensated for their advanced degree. Without the ability to compete with other professions in terms of role satisfaction and pay for college graduates, Eastman and McCain feel it is unlikely that recruitment drives on college campuses will exceed current levels (1973:120). Further, civil service commissions exhibiting administrative, regulatory, and policy formulating roles restrict the adoption of educational incentive programs for police (Greisinger, Slovak, and Molkup, 1979). Admittedly, there is a wide variation in the nature of police education programs to be included in such an incentive-based system, but these factors discourage the use of such systems regardless of the nature of such programs.

Further, some police employee organizations resist the adoption of educational incentive programs because of disagreements with the methods of administering such programs (Feuille and Juris, 1976). One contention is that incentive systems do not fairly provide benefits for the older officer who may not be inclined to return to the classroom. Such officers, consequently, may feel anger and resentment toward younger, college-educated officers who are promoted past them (Miller and Fry, 1976a.)

Considering these various findings, it is possible to develop solid inferences concerning the effect of education in law enforcement. These inferences are itemized below:

- It would appear that there is some evidence that educational stratification is positively related to performance. Research has shown positive correlations between education and several performance dimensions (e.g., arrest rate, supervisors' ratings, advancement, on-the-job injuries, disciplinary actions, citizen complaints, and work attendance).

- There does seem to be a positive relationship between education and more open belief systems, specifically a decline in dogmatism among police officers.

- Increasing education in police agencies does not appear to be associated with cynicism levels among police officers, or with variance in police officer satisfaction.

The relationship between increasing education and job knowledge and skills as researched by Cascio (1977) cannot be incorporated in this list of inferences due to the limited number of studies investigating the relationships between these variables. This subject, however, would present an interesting concept for further research.

## Summary and Conclusion

The focus of this chapter has been the structuring of individual jobs and work tasks within organizations. Variations in management structuring of work tasks have been assessed considering the effects of division of labor, technology, skill structure and professionalism, and individual personnel attributes on management practices. This chapter has also addressed the effects of variations in internal structural differentiation on other management/organizational variables.

The content of the police studies reviewed for this conceptual cluster was centered primarily on three subjects: skill structure and professionalism, racial stratification, seniority, and education. The breadth of studies in these subject areas permitted the drawing of inferences concerning research findings, although such findings at times revealed conflicting results. There was considerably less knowledge to be derived from sampled studies focusing on other variables in the cluster, namely functional specialization, departmental specialization, technological complexity, and sexual stratification. The absence of research in these areas contributes to knowledge base weaknesses concerning these subjects.

The non-police literature reviewed for this conceptual cluster yielded valuable knowledge regarding the effects of division of labor (functional and departmental specialization) and technology on organization structure. Furthermore, this literature contained numerous analyses of individual skill structure and professionalism in organization. This literature by and large relies on a different conceptualization of professionalism than is utilized in much police research.

This chapter has shown that researchers in police science have for the most part not analyzed the effects of division of labor in the police organization, although there have been efforts toward examining the impact of decreased specialization in police roles, largely in the form of evaluations of team policing programs. The notion of civilianization of police functions has been addressed by several researchers. The results of such research is not conclusive, however, and in actuality raises more questions than it answers concerning the effects of civilianization.

Research in the general management and social science disciplines demonstrates that there is a relationship between division of labor and size of the organization (larger organizations generally have a greater division of labor), between division of labor and hierarchical levels (organizations with advanced division of labor generally have a flat rather than a tall organization structure), and between division of labor and administrative/management staff. In organizations with a greater division of labor, there is likely to be a greater proportion of management personnel, while organizations with a tall hierarchical structure are more apt to rely on technical specialists and administrative support personnel rather than management personnel.

The non-police literature on technology suggests that technological complexity is one primary element of organization structure (others are organization size and division of labor). Increasing technology is shown to be associated with decreasing management authority and declining perceptions of worker feelings of autonomy and importance. The void in the police literature regarding technology does not permit the drawing of inferences concerning the ultimate effect of technology in police organizations.

Professionalism has frequently been conceptualized differently in police research than in research in other disciplines. Certain police studies have conceptualized professionalism as increased technical and managerial efficiency, and has not considered "individual professionalism" extensively. Conversely, the non-police literature analyzes the relationship of professional commitment to organizational commitment showing that they may not be directly correlated in many organizations.

Three personal stratification variables have been analyzed quite extensively in the police literature: racial stratification, seniority, and education. The effects of greater employment of female officers has not been analyzed with the exception of a few sampled studies. There is little knowledge to be derived from these studies. The consequences of increased employment of females seem relatively unknown.

The sampled literature on racial stratification in policing presents conflicting findings and, in some instances, lacks methodological sophistication. Therefore, it is difficult to derive conclusive findings as to the effects of increased employment of minorities in policing.

The ample body of literature on the role of seniority in police behavior and attitudes suggests that socialization in the police agency acquired through increasing tenure and exposure affects police officer attitudes and performance. The precise relationships between seniority and these individual characteristics is not known as there is a conflict in the literature as to the effect of initial police recruit values and belief systems on these attitudes. Some researchers have noted that police candidates possess certain personality traits and that these traits in addition to socialization play a key role in forming ultimate police attitudes and value systems.

The sampled police research appears to confirm a positive relationship between increasing police officer education and performance. Performance is measured according to a variety of criteria in several studies. Education also appears to have an impact on police officer belief systems, although the simultaneous effects of socialization on such beliefs have not been shown. Increasing education does not appear to be related to cynicism and satisfaction levels among police officers.

The literature reviewed for this conceptual cluster identifies several needed areas of further research. Among these are:

- A need to investigate the effects of division of labor in police organizations. Specifically, there is a need to determine the relationships between increased departmental specialization and management ratios. This research could determine if a decline in specialization

would result in a decrease in police managers. This result is suggested by research in other disciplines.

- There is a related need to ascertain the relationship between functional specialization and management authority. This research could consider if greater generalization of the police task (i.e., less specialization) results in decreased management authority and, if this is so, determine management's perception of this change in levels of authority.

- Research addressing the impact of technology is needed in policing. This research should consider the effects of increasing technology on organization structure, levels of authority, decision-making systems, and officer role perceptions.

- There is a need to continue to expand the conceptualization of professionalism in police research to include not only improved efficiency, but also enhanced professional status of officers. There is a distinct split in the literature concerning professionalism. Some associate professionalism with improved managerial efficiency, while others define it as developing expertise and autonomy in the individual. The literature does not suggest, however, that the two are correlated, although both forms of study correlate professionalism with positive outcomes. The former stream of inquiry correlates professionalism with organizational effectiveness, while the latter associates professionalism with job enrichment.

- There is a need to research the effects of education of police officers on knowledge, skills, and abilities to ascertain if higher educated officers actually possess enhanced abilities, or if other factors, such as experience, are more pertinent in developing these abilities.

# V. ORGANIZATIONAL COORDINATION AND CONTROL

## Introduction

The fourth conceptual cluster includes 13 distinct variables which define managerial processes and systems for controlling and coordinating the human enterprise and the work effort within the organization. Whereas previous chapters have analyzed primarily conceptual management considerations in structuring the organization, this chapter moves into a new arena--that of managing and integrating the work effort to achieve desired goals and objectives. Previous chapters have addressed management's efforts to adapt the organization to its larger environment and have examined organizational structure considerations in light of variations in the task structure of the organization, the organization's technological complexity, and the human resources available. This chapter assesses research findings focusing on management methods of controlling and coordinating these various human and material resources within the organization.

The variables in this conceptual cluster can be aggregated into four topical areas for purposes of analyzing the state of the art of organizational coordination and control in police administration. The four topical areas are: (1) traditional, bureaucratic modes of coordination and control, (2) non-bureaucratic modes of coordination and control, (3) management/supervisory systems of coordinating and controlling the human enterprise within the organization, and (4) organizational maintenance activities to coordinate and control the human enterprise. Each of these sub-clusters focuses on a unique facet of organizational and management theory as pertaining to police organizations.

The sub-clusters addressing traditional, bureaucratic modes of coordination and control and non-bureaucratic modes of coordination and control are derived from opposing schools of organization and management theory. The former emanates from the classical, bureaucratic model of organizations as proposed by Weber (Gerth and Mills, 1958), the principles of management school fathered by Henri Fayol (1949, English translation) and popularized by Gulick and Urwick (1937), and the scientific school of management as developed by Taylor (1947). These theories all stressed management systems emphasizing standardization of work throughout the organization with activities and work relationships prescribed by formalized rules and procedures and job descriptions. In essence, these schools of thought focused on the formal organization structure as a means of coordinating and controlling the work effort of the organization.

The non-bureaucratic sub-cluster focuses on the principles of the human relations school of management as first initiated by the recognition of an "informal structure" within organizations. The famous Hawthorne studies

(Roethlisberger and Dickson, 1939) acknowledged the existence of this informal structure through which unofficial relationships within the work group, other than those prescribed by structure or work task, helped to coordinate the work effort. This school of thought received considerable attention through the 1950's and 1960's and evolved into a separate set of management theories complete with prescriptions for coordinating and controlling work in organizations (see, for example, Likert, 1961). Proponents of this school urged that management reliance on formal structure and bureaucratic methods of control and coordination was oversimplified and that attention should also be given to "informal" devices of coordinating and controlling the human enterprise and the work process.

A third sub-cluster was constructed to incorporate research addressing formal and informal management and supervisory means of coordinating and controlling employee behavior. Included within this sub-cluster are analyses of managerial practices of delegating authority and decision-making within the organization. One such practice is that of decentralizing authority to work units or physical locations within the organization.

The topic of police discretion is analyzed in this third sub-cluster. It is widely acknowledged that police officers enjoy considerable discretion in the performance of their duties and responsibilities. The research literature was analyzed not to verify or refute this contention, but to ascertain what supervisory and managerial techniques have been utilized to guide and structure this discretion.

The fourth area of emphasis addresses organizational maintenance efforts to sustain and develop the human element in the organization. Included in this sub-cluster are analyses of pertinent management systems constructed to recruit and select new employees, train these new members, promote employees, and evaluate employee performance.

It should be pointed out that this aggregation of variables into sub-clusters does not minimize the importance of each of the unique variables included in this cluster. Each of these variables are analyzed in the context of specific sub-cultures, but still retains a unique identity as originally intended.

## Descriptive Findings

The research team identified, retrieved, and reviewed 100 studies incorporating research on variables in this cluster from police science and administration journals, books, monographs, and other reports. A total of 80 studies were extracted and reviewed from the general management and social science disciplines. Thus, the two samples for this conceptual cluster were quite large. This is explained in part by the number of variables included in

this conceptual cluster (13). It is also likely that the subject matter itself explains this large sample size. This is particularly true for the police sample. This cluster includes several variables focusing on topics which have received considerable attention in law enforcement circles. Topics such as recruitment, training, and discretion are directly pertinent to the law enforcement discipline and have been subjected to considerable research.

As with previous chapters, the studies included in the two samples for this cluster were reviewed and coded to generate a knowledge base on the state of the art in organizational coordination and control.[33] Descriptive findings for this cluster are presented in this section. Included are analyses of the number of studies by specific variables within the cluster and a discussion of the number and type of studies included in sub-cluster topical areas. These sub-cluster topical areas are: (1) traditional, bureaucratic modes of coordination and control; (2) non-bureaucratic modes of coordination and control; (3) management/supervisory systems of coordinating the human enterprise within the organization; and (4) organizational maintenance activities to coordinate and control the human enterprise. This section of the chapter also includes discussions focusing on the types of research designs used in sampled studies, the forms of analysis used, and finally, a synthesis of general descriptive findings.

## Number of Studies by Specific Variables

The method of grouping the 13 distinctive variables in this conceptual cluster into 4 sub-cluster topical areas is presented below. Specific definitions for each of these variables may be found in Chapter I: Detailed Project Methodology.

1. Traditional, Bureaucratic Modes of Coordination and Control--includes variables (25.) Formalization/Written Rules; (27.) Hierarchical Levels; (28.) Span of Control; Manager Ratio; and (29.) Administrative Staff and Communication.

2. Non-Bureaucratic Modes of Coordination and Control--includes variables (21.) Committees; (22.) Incentives: Material; (23.) Incentives: Social; and (24.) Incentives: Normative.

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[33]The knowledge base developed for this study is not based on an inclusive synthesis of all research studies examining organizational coordination and control variables. Rather, it is a knowledge base developed from sampled research studies reviewed for this project.

3. Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization—includes variables (26.) Discretion; (30.) Decision-Making Systems; and (31.) Employee Coordination/Control.

4. Organizational Maintenance Activities to Coordinate and Control the Human Enterprise—includes variables (32.) Recruitment, Advancement Systems; and (33.) Training Systems.

In certain instances, the project team defined sub-variables for variables which proved to be broad in scope. Sampled studies for such variables addressed divergent managerial or administrative issues. As in previous chapters of this report, sub-variables were generic in definition—that is, they could be applied to both the police and non-police samples.

Table 16 contains the itemization of studies reviewed for variables and sub-cluster topical areas included in this cluster. It should be pointed out that in some instances reviewed studies addressed more than one variable. The totals for this table, therefore, will equal more than the total number of studies reviewed.

The data incorporated in this table reveal that there is a distinctive difference between the police sample and the non-police sample concerning the types of studies reviewed. Studies examining four variables in the police sample constitute 69% of the total number of studies reviewed. Two of these variables (Recruitment and Advancement Systems and Training Systems) are in one sub-cluster topical area. The remaining two (Discretion and Employee Coordination/Control) are included in a second sub-cluster topical area. The implication of this uneven distribution of studies is that it will be more difficult to deduce a knowledge base in the police sample for the remaining two sub-cluster topical areas. In such sub-clusters (Traditional, Bureaucratic Modes of Coordination and Control) there are a sufficient number of studies for two variables (Formalization/Written Rules and Hierarchial Levels) to derive specific conclusions. However, the number of studies in the police sample even for these variables is much smaller than the sample in the non-police arena.

The pattern of representation of variables in the non-police sample almost mirrors that found in the police sample. A total of 85% of the studies in the non-police sample was composed of studies researching seven variables. These seven variables were in the two sub-cluster areas not well represented in the police sample, as well as the cluster on Management/Supervisory Coordination Systems. Three of the variables (Formalization/Written Rules, Hierarchical Levels, and Administrative Staff and Communication) are contained in the topical area entitled Traditional, Bureaucratic Modes of Control and Coordination. Two additional variables (Committees and Incentives: Normative) are included in the topical area

Table 16

NUMBER OF STUDIES REVIEWED BY SPECIFIC VARIABLE

(Conceptual Cluster IV)

| Variable Number | Name | Police | Non-Police |
|---|---|---|---|
| | **Traditional, Bureaucratic Modes of Coordination and Control** | | |
| 25. | Formalization/Written Rules | 9 | 22 |
| 27. | Hierarchical Levels | 10 | 21 |
| 28. | Span of Control; Manager Ratio | 1 | 4 |
| 29. | Administrative Staff and Communication—Total | 4 | 18 |
| | ● Management/Administration Staff | (2) | (5) |
| | ● Support Staff | (0) | (4) |
| | ● Communication Systems | (2) | (7) |
| | **Non-Bureaucratic Modes of Coordination and Control** | | |
| 21. | Committees | 4 | 9 |
| 22. | Incentives: Material | 6 | 4 |
| 23. | Incentives: Social | 0 | 4 |
| 24. | Incentives: Normative | 2 | 9 |
| | **Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization** | | |
| 26. | Discretion—Total | 28 | 3 |
| | ● Application | (18) | (3) |
| | ● Control and Coordination | (10) | (0) |
| 30. | Decision-Making Systems—Total | 5 | 22 |
| | ● Centralization of Authority | (3) | (17) |
| | ● Decision-Making Styles | (2) | (5) |
| 31. | Employee Coordination/Control—Total | 21 | 15 |
| | ● Supervisory Coordination/Control Systems | (12) | (8) |
| | ● Leadership Style | (2) | (7) |
| | ● Supervisory Evaluation of Performance | (3) | (0) |
| | ● Supervisory Roles in Discipline | (5) | (0) |

Table 16 (continued)

| Variable Number | Name | Police | Non-Police |
|---|---|---|---|
| | **Organizational Maintenance Activities to Coordinate and Control the Human Enterprise** | | |
| 32. | Recruitment, Advancement Systems--Total | 25 | 2 |
| | ● Recruitment | (21) | (2) |
| | ● Advancement | (2) | (0) |
| | ● Performance Evaluation | (2) | (0) |
| 33. | Training Systems--Total | 17 | 4 |
| | ● General | (3) | (2) |
| | ● Recruit | (7) | (0) |
| | ● In-Service | (5) | (0) |
| | ● Supervisory/Management | (2) | (2) |

entitled Non-Bureaucratic Modes of Coordination and Control. This distribution suggests that more conclusive findings will be generated for the non-police sample for these two topical areas.

The non-police sample also includes a substantial number of studies which researched decision-making systems. The remaining two variables constituting the 85% figure above are included in this area (Decision-Making Systems and Employee Coordination/Control). Considering that there is a significant representation of police studies appearing in this sub-cluster topical area, it will be possible to generate conclusive findings from each sample for this area.

This variance in the distribution of studies can perhaps be explained in two ways. First, the general management and social science arena has initiated numerous analyses of formal organizational structures with an interest in testing many theories originally proposed by Weber (Gerth and Mills, 1958) and other organizational theorists. These analyses of organizational structure often measure several of the variables included in this cluster as determinants of structure. The variables on formalization/written rules, hierarchical levels, administrative staff and communication and decision-making systems (with a focus on centralization of authority) are invariably used as measures of formal structure. The police literature, at least that literature sampled for this study, does not contain a similar depth of analyses of structure, although selected studies have recently been published providing empirical evidence concerning structural arrangements in policing (see, for example, Tifft, 1975; Jermier and Berkes, 1979).

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Secondly, researchers in police science and administration have tended to focus on "policy-relevant" issues oriented toward improvements in policing. This research has concentrated on the role of the police officer with an interest in identifying what the police officer does, how he/she performs the job, what elements are most critical to performing the job, how management should recruit officers to perform the desired functions, how management should train officers to perform these functions, and how the officer should be supervised. These interests upon close examination parallel four of the variable areas included in this cluster, respectively discretion, recruitment, training, and supervision (defined as Employee Coordination/Control). As is depicted in Table 16, these variables constitute a major segment of the police sampled studies for this cluster.

As a final thought on this distribution, the small number of studies in the non-police sample addressing variables 32 and 33 (respectively Recruitment/Advancement Systems and Training Systems) can also be explained by the document selection strategy. The Administrative Science Quarterly, the prime journal for the general management sample, did not by all accounts contain a large number of articles addressing these two subjects. Perhaps a more vigorous review of journals examining behavioral management topics (those largely featuring articles by psychologists) would have added substantially to this sample.[34] Some of these journals (e.g., American Behavioral Scientist, Personnel Psychology, Public Personnel Review, Training and Development) undoubtedly include additional empirical examinations of these two topics.

## Research Designs

Each study selected for this conceptual cluster was reviewed to determine the type of research design utilized and the treatment of variables. Members of the research team coded each study as fitting one of four possible research designs: Exploratory, Case Study, Quasi-Experimental, or Experimental. As part of the analysis of research designs, members of the research team also determined if the variables in this cluster were treated as dependent or independent variables in selected studies.

Research Design Types. The results of the analysis of research designs appears in Table 17. The majority of studies in the police sample were exploratory in design. This pattern is typical of studies appearing in the entire police sample, as is evidenced by reviews of reviewed research designs for other conceptual clusters. The non-police sample, however, contains a significant percentage of studies with either quasi-experimental or experimental designs (18%). These studies were mostly rigorous analyses of experimental designs.

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[34]The resources of this study limited the number of such journal articles that could be reviewed.

changes in organizational structure, decision-making systems, or supervisory leadership styles. Social scientists in many instances set up sophisticated research designs which analyzed the results of such changes on some other organizational design characteristics (e.g., the effect of changes in hierarchical structure on internal communication), or on some measure of organizational output (e.g., effectiveness, innovation). Other researchers also evaluated the result of changes in structure, or in supervisory styles on the informal organizational structure in efforts to ascertain what changes in employee commitment or satisfaction were produced.

Table 17

TYPES OF RESEARCH DESIGNS FOR SAMPLED STUDIES

| Types of Designs | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| • Exploratory | 52 | 52 | 50 | 63 |
| • Case Study | 43 | 43 | 16 | 20 |
| • Quasi-Experimental | 4 | 4 | 4 | 5 |
| • Experimental | 1 | 1 | 10 | 12 |
| | 100 | 100% | 80 | 100% |

It is more likely that researchers analyzing variables in this cluster, as opposed to previously analyzed conceptual clusters, would have the opportunity to use quasi-experimental or experimental research designs. Specific managerial actions producing modifications in structure, procedures, or management style in many situations can be pinpointed by time of occurrence with subsequent measures of results traced. The fact that only 5% of the studies in the police sample utilized quasi-experimental or experimental designs demonstrates that management research in the police arena is much less advanced than in the social science disciplines.

The distribution of studies by individual variables in the police sample provides further insight into the state of the art of research in the police field. Whereas much of the general management research focused on modifications to structure, procedures, and supervision, a considerable proportion of the police studies dealt with personnel matters and addressed management issues secondarily. The fact that much of the police sample analyzes discretion, recruitment, and training demonstrates this point. Rather than analyzing changes in managerial systems, police researchers have tended to place a greater emphasis on issues concerning police personnel.

Treatment of Variables in Research Designs. To provide a further analysis of the state of the art, the treatment of pertinent variables (either

dependent or independent) was determined. This analysis sought to provide information about the way researchers have analyzed the subjects in this cluster. Ascertaining whether a variable is treated as a dependent or independent variable can suggest possible levels of knowledge development regarding that variable. If, for example, a variable is mostly treated as an independent variable, it will be likely that inferences can take the form of suggesting how that variable affects other managerial and organizational factors. But, if the given variable is treated mostly as a dependent variable, it will be possible only to deduce findings explaining the effects of individual or managerial actions on that given subject.

The results of this analysis are portrayed in Table 18. It should be pointed out that certain of the selected studies researched more than one variable. Therefore, the totals in this table will equal more than the total number of studies reviewed for this cluster.

Table 18

TREATMENT OF VARIABLES IN RESEARCH DESIGNS

| Variable Number | Name | Police | | Non-Police | |
|---|---|---|---|---|---|
| | | Independent | Dependent | Independent | Dependent |
| 21 | Committees | 3 | 1 | 5 | 4 |
| 22 | Incentives: Material | 2 | 4 | 4 | 0 |
| 23 | Incentives: Social | 0 | 0 | 2 | 2 |
| 24 | Incentives: Normative | 2 | 1 | 3 | 6 |
| 25 | Formalization/Written Rules | 7 | 4 | 13 | 9 |
| 26 | Discretion | 1 | 27 | 2 | 1 |
| 27 | Hierarchical Levels | 4 | 6 | 12 | 7 |
| 28 | Span of Control: Manager Ratio | 0 | 1 | 1 | 3 |
| 29 | Administrative Staff and Communication | 1 | 3 | 9 | 8 |
| 30 | Decision-Making Systems | 5 | 1 | 9 | 14 |
| 31 | Employee Coordination/ Control | 7 | 15 | 7 | 11 |
| 32 | Recruitment/Advancement Systems | 16 | 9 | 1 | 1 |
| 33 | Training Systems | 12 | 3 | 1 | 0 |

These data reveal a significant variation in the treatment of variables between the police and non-police samples. In the non-police sample, there are a significant number of studies for many variables in both the columns headed as "dependent" and "independent" (e.g., Formalization/Written Rules, Hierarchical Levels, Administrative Staff and Communication, Decision-Making Systems). This is not the case for the police sample. With some exceptions, there appears to be a pattern of similarity in the way researchers analyze and treat variables in this cluster. Consider, for example, the following variables: Discretion, Decision-Making Systems, Training Systems. The sampled studies for these variables treat the key variables similarly in the research designs.

This is especially true for the variable entitled Discretion. Researchers have almost entirely examined what factors in the police working environment affect discretion. These studies fall into one or two treatments of discretion. Some researchers analyze the application of discretion primarily describing what factors impact the discretionary decision-making of a patrol office (e.g., citizen demeanor, individual personality of the officer, social peer pressure within the organization). Others examine the potential for control and coordination through factors such as rules and procedures or supervisory initiatives. Very little work has been done, at least as can be identified in this study, researching the effects of discretion on other organizational and management characteristics, such as hierarchical structure, span of control: manager ratio, the informal organization, or levels of police performance.

## Methods of Analysis

A third step in the analytical process was the specification of the methods of analysis used in sampled studies. This analysis was also performed to add to the state of the art of police management research by depicting the analytical sophistication of available research. Four levels of statistical analysis were incorporated in the coding system: qualitative, univariate, bivariate, and multivariate.

The results of this analysis are presented in Table 19. These data again reveal a difference in the police and the non-police samples. Those studies sampled in the non-police arena relied on more sophisticated forms of analysis than those in the police sample, although the police studies sampled for this cluster employed more bivariate or multivariate analytical techniques than in previous conceptual clusters. The difference between the two samples is in part explained by the selection of The Administrative Science Quarterly as the target journal in the non-police sample. As illustrated earlier in this report, this journal by design features studies utilizing more sophisticated types of analysis.

Table 19

METHODS OF ANALYSIS FOR SELECTED STUDIES

| Methods of Analysis | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Qualitative | 23 | 23 | 4 | 5 |
| ● Univariate | 9 | 9 | 2 | 2 |
| ● Bivariate | 33 | 33 | 30 | 38 |
| ● Multivariate | 35 | 35 | 44 | 55 |
| | 100 | 100% | 80 | 100% |

The difference between the samples is also partly explained by the variables that were researched. Again considering the variable entitled Discretion, the police sample contains a number of studies which rely on qualitative analytical techniques in describing the application of discretion. This is due to both the relative recency of police research on this topic and the difficulty in collecting data that would facilitate more sophisticated analyses (e.g., data explaining personal demographic and experiential characteristics of police patrol officers, or personal attitudes and demographics of citizens receiving police services).

There were a substantial percentage of police studies which did incorporate multivariate analytical designs. A close look at the police sample, however, demonstrates that a considerable proportion of these studies researched two variables: (1) Recruitment, Advancement Systems, and (2) Training Systems. A total of 20 of the 25 studies addressing the variable entitled Recruitment/Advancement Systems (80%) incorporated either bivariate or multivariate statistical designs. One hundred percent of those studies researching training systems (17) used either bivariate or multivariate statistical designs. This finding is not altogether surprising considering that both of these topics concern behavioral measures and that personal demographic data are often available to include in analytical designs. What this finding does suggest, however, is that these studies influenced the findings for the police sample for this cluster quite heavily.

## Presentation of Descriptive Findings Produced by Sampled Research Studies

As in previous chapters of this report, patterns of relationships between variables were coded and analyzed for all studies in this conceptual cluster. These relationships in sum portray descriptive findings as to the state of the art for unique variables included in the cluster. Such descriptive findings are presented in Exhibit D entitled Synthesis of Descriptive Findings: Organizational Coordination and Control.

The descriptive findings for this cluster take on a somewhat different form than was used for previous clusters. The variables for this cluster were grouped into sub-cluster topical areas; the descriptive findings are grouped by such areas. Findings for each variable are also included in the exhibit.

As was stressed for previous chapters, it should be remembered that these findings are descriptive in nature. This indicates that these are specific findings from empirical research, but does not indicate that they are necessarily generalizable. All generalizable findings are discussed in the context of knowledge base strengths and weaknesses which appear in the section entitled "Inferential Findings," immediately following Exhibit D.

Exhibit D

SYNTHESIS OF DESCRIPTIVE FINDINGS:
ORGANIZATIONAL COORDINATION AND CONTROL

| Police Studies | Non-Police Studies |
|---|---|
| Traditional, Bureaucratic Modes of Coordination and Control | Traditional, Bureaucratic Modes of Coordination and Control |

25. Formalization/Written Rules

- Indication that police agencies employing a more "legalistic" style of enforcement place more emphasis on formalized written directives than do other agencies.

- Research finding that decentralization of decision-making and increasing skill structure in policing is negatively associated with utilization of formalized rules and procedures.

- Indication that a greater amount of training in formalized/written rules and more thorough supervisory explanations of reasons for formalized rules are associated with a more favorable perception of rules and procedures by police officers.

- Research suggests that formalization of written rules is not associated with employee compliance to prescribed standards of conduct.

25. Formalization/Written Rules

- Indication that larger organizations are more likely to have formalized written rules and procedures than are smaller organizations.

- Research shows that workers with a highly variable task structure are less likely to have formalized written rules governing a majority of day-to-day task activities.

- Indication that organizations with a greater degree of technological complexity are less likely to place reliance of formalized written rules to govern behavior than are organizations with less technological complexity.

- Indication that a greater concentration of authority by management is positively associated with implementation of formalized rules and procedures.

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| Police Studies | Non-Police Studies |
|---|---|
| • Finding that formalization/written rules is negatively associated with police officer satisfaction; the explanation of written directives by supervisors, however, tends to foster more positive police officer satisfaction. | • Research suggests that a greater emphasis on formalization/written rules is associated with less commitment of employees to the organization and a greater likelihood of social cohesion among work groups, and is not associated with organizational effectiveness or supervisory span of control. The research sample includes mixed findings on the relationship of formalization/ written rules to individual performance, satisfaction, and propensity to adopt organizational changes. |

27. Hierarchical Levels

- Indication that more "legalistic" police agencies are more likely to rely on hierarchical management structures to coordinate and control employees.

- Research indicates that increased training of police officers is negatively associated with a reliance on hierarchical management structures to coordinate and control police behavior.

- Research findings suggest that hierarchical management structures are not correlated with individual performance, organizational effectiveness, or innovation in police agencies.

27. Hierarchical Levels

- Indication that size of organization is directly associated with taller organizational structures.

- Research findings indicate that a high degree of "environmental uncertainty" is associated with less reliance on hierarchical management structures to coordinate/control employee behavior.

- Diversity of organizational objectives and variability of task structure is positively associated with taller organizational structures.

- Research suggests that an increase in division of labor in organizations is associated with less reliance on

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Exhibit D (continued)

Police Studies

Non-Police Studies

hierarchical structures to coordinate/
control the human enterprise within the
organization.

- Hierarchical structure is found to be
  positively associated with concentration
  of decision-making authority and social
  cohesion of the work force, negatively
  associated with individual performance,
  employee commitment and satisfaction, and
  team related decision-making systems.

- The research studies reviewed provide
  mixed findings concerning the
  relationship between hierarchical
  structures and organizational
  effectiveness.

28. Span of Control; Manager Ratio

- Suggestion that in recent years police
  agencies have exhibited a greater
  proportion of officers at higher ranks
  resulting in larger
  supervisory/subordinate ratios.

28. Span of Control; Manager Ratio

- Indication that larger organizations have
  a smaller ratio of managers to workers
  than is evident in smaller organizations.

- Suggestions that there is a positive
  relationship between administrative staff
  and span of control between supervisors
  and subordinates. (This suggests a
  tendency toward a larger administrative
  component is associated with a smaller
  supervisory complement.)

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| Police Studies | Non-Police Studies |
|---|---|

* Research indicates that division of labor is negatively associated with span of control (i.e., the greater the division of labor, the smaller the ratio of supervisors to subordinates).

29. Administrative Staff and Communication

   a. Management/Administration Staff

* Research findings indicate the decentralization of police decision-making authority is positively associated with a larger management/administration staff in police agencies.

29. Administrative Staff and Communication

   a. Management/Administration Staff

* Research finding that a greater proportion of administrative/managerial personnel is negatively associated with the likelihood of adopting innovations, is positively associated with the perceived need for employee coordination/control, and is not associated with actual control and coordination of employee behavior.

* Finding that division of labor is positively associated with the size of the administrative staff component (i.e., the greater the division of labor, the more administrative/managerial personnel in the organization).

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Exhibit D (continued)

<table>
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Police Studies

b. **Support Staff**

- Indication that police chief executives in larger police organizations perceive a greater need for administrative support personnel than do police chiefs in smaller agencies.

c. **Communication Systems**

- Indication that managerial and supervisory communication is positively associated with police officer satisfaction.

**Non-Bureaucratic Modes of Coordination and Control**

21. Committees

- Employee participation in the development of written rules and procedures is found to be positively associated with perceived fairness of rules and procedures and disciplinary actions.

</td><td>

Non-Police Studies

b. **Support Staff**

- Research findings show that the following organizational and management attributes are positively associated with a larger staff support component: geographical dispersion, technological complexity, and legal/political autonomy.

- Indication that division of labor in organizations is negatively associated with size of the staff support component.

c. **Communication Systems**

- The research studies included in this sample suggest that managerial communication is positively associated with employee satisfaction and commitment to the organization.

**Non-Bureaucratic Modes of Coordination and Control**

21. Committees

- Research finding that "environmental uncertainty" is positively associated with utilization of participatory management systems and that use of such systems results in effective organizational adaptation to environmental changes.

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| Police Studies | Non-Police Studies |
|---|---|
| ● Indication that participatory leadership behavior is positively associated with police officer satisfaction. | ● Research studies suggest that there is a positive association between division of labor (functional and departmental specialization) and utilization of participatory management schemes. |
| | ● Finding that participatory management is positively related to managerial performance and to organizational effectiveness. |

22. Incentives: Material

● Indication that educational levels and perceived professionalism in police agencies has no relationship to material incentives.

● Research finding that civil service systems emphasizing administrative and regulatory roles over police organizations are less likely to permit the implementation of pay incentive plans for police officers.

● The research literature presents mixed findings concerning the relationship between material incentives and minority selection of a police career. Certain

22. Incentives: Material

● Finding that use of material incentives by management is positively associated with employee satisfaction and acceptance of innovation.

● Indication that normative incentives has no relationship to employee retention rates in organizations.

Exhibit D (continued)

| Police Studies | Non-Police Studies |
|---|---|

studies suggest that material motives are
of paramount importance while others
conclude that normative incentives are
more important.

23. Incentives: Social

- The literature reviewed is silent on this
  variable.

23. Incentives: Social

- Research suggests that individual
  employee autonomy is negatively
  associated with social incentives.

- Indication that the use of social
  incentives by management is positively
  associated with commitment of employees
  to the organization.

24. Incentives: Normative

- Research finding that increased
  realization of normative incentives
  (feelings of meaningfulness in work) is
  negatively associated with role stress in
  police organizations and positively
  associated with public support of police
  officers.

24. Incentives: Normative

- Research suggests that cutbacks in the
  economy, greater reliance on technology
  in organizations, and a lack of
  individual autonomy are negatively
  associated with normative incentives
  (feelings of importance, intrinsic
  motivation, and job involvement).

- Indication that individual employee
  challenge, job rewards, and increased
  personal responsibility are all
  positively associated with individual
  performance and increased individual
  satisfaction.

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| Police Studies | Non-Police Studies |
|---|---|

**Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization**

**Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization**

26. Discretion

    a. Application

- Research findings suggest that the application of police officer discretion is applied according to situations faced by the individual officer. Several factors, including the demeanor of the citizen, the presence of bystanders, and the socioeconomic status of the complainant or offender all affect the application of discretion.

- Indications that the application of discretion is positively affected by officer education, peer influences, and professional identity among police officers.

- Research finding that the use of discretion by police officers militates against referrals by police to social service agencies.

26. Discretion

    a. Application

- Sampled research studies suggest that increased autonomy in the work environment is positively associated with normative incentives, employee commitment, and technological complexity. Increased autonomy also is negatively associated with functional specialization and realization of social incentives in the work place.

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Exhibit D (continued)

| Police Studies | Non-Police Studies |
|---|---|

b. **Control and Coordination**

- Sampled research studies indicate that formalization/written rules, training systems, and existing supervisory practices have little or no effect on police officer discretion. Suggestion that social cohesion (peer influence) may have the most predominant influence over discretion.

b. **Control and Coordination**

- The literature reviewed is silent on this variable. (This topic is addressed in Chapter IV: Internal Structural Differentiation under the topic of Skill Structure, Professionalism.)

30. Decision-Making Systems

a. **Centralization of Authority**

- Suggestions from sampled research studies that decentralization of authority in police agencies is positively associated with improved client (citizen) evaluations of police services, with increased realization of normative incentives (feelings of meaningfulness in work), with officer job satisfaction, and with larger management/administrative complements in police agencies.

30. Decision-Making Systems

a. **Centralization of Authority**

- Research studies indicate that the following organizational/management dimensions are positively associated with concentration of decision-making authority: geographic dispersion, hierarchical structures, higher levels of management-worker conflict, and a greater propensity of employees to conform to organizational rules and procedures.

- Concentration of decision-making authority is shown to be negatively related to the following organizational/management dimensions: variability of tasks, technological complexity, changes in environment (e.g., fiscal, legal/political, regulatory).

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| Police Studies | Non-Police Studies |
|---|---|

Non-Police Studies:

- Research findings indicate concentration of decision-making authority is not associated with organizational size.

b. **Decision-Making Styles** (Police Studies)

- Indication that supervisory participativeness in decision-making is positively associated with police officer satisfaction.

b. **Decision-Making Styles** (Non-Police Studies)

- Finding that the use of participatory management systems is positively associated with increased authority of managers.

- Suggestion that a collegial decision-making model is positively associated with employee satisfaction, adoption of normative incentives by employees, and increased individual performance.

31. Employee Coordination/Control (Police Studies)

a. **Supervisory Coordination/Control Systems**

- Research findings suggest that variability in police task structure is positively associated with a greater need for supervisory coordination and control.

- Indication that police occupational culture makes it difficult for managers and supervisors to control effectively police officer behavior.

31. Employee Coordination/Control (Non-Police Studies)

a. **Supervisory Coordination/Control Systems**

- Research finding that larger organizations are more likely to institutionalize mechanisms for assuring supervisory control of organizational outputs than are smaller organizations.

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| Police Studies | Non-Police Studies |
|---|---|
| • Supervisory explanations of the reasons for rules and procedures is positively related to favorable ratings of those rules by officers.<br><br>Indication that favorable perceptions of supervisors is positively associated with high police officer satisfaction and that negative perceptions of supervisors is associated with low commitment to the organization by employees. | • Indication that increased environmental uncertainty due to economic, legal/political, or regulatory changes is negatively associated with emphasis on supervisory control of organizational outputs.<br><br>• Research finding that the implementation of an MBO program is positively associated with individual performance, but also has a positive association with the filing of more grievance procedures against supervisors. |
| b. Leadership Style<br><br>• Research finding that supervisory participativeness in decision-making is positively associated with police officer satisfaction.<br><br>• Suggestion that leadership on the part of police sergeants is critical to the institutionalization of professionalism in policing. | b. Leadership Style<br><br>• Indication that the adoption of an initiating structure style in supervision and management (i.e., a style which encourages interaction between workers and managers) is positively associated with employee performance and satisfaction. |
| c. Supervisory Evaluation of Performance<br><br>• Supervisory evaluation of probationary police employees is positively associated with predictions of police officer performance in later years. | c. Supervisory Evaluation of Performance<br><br>• The literature reviewed is silent on this variable. |

| Police Studies | Non-Police Studies |
|---|---|

**Police Studies**

- Research suggests that seniority in policing is negatively associated with supervisory performance evaluation ratings.

d. Supervisory Roles in Discipline

- Indication that seniority of police officers is positively associated with favorable perceptions of supervisory disciplinary actions.

- Indication that off duty violations of police rules and policies are more likely to receive negative sanctions from supervisors than are on duty violations.

Organizational Maintenance Activities to Coordinate and Control the Human Enterprise

32. Recruitment, Advancement Systems

a. Recruitment

- Research results demonstrate that a number of formalized recruiting practices (e.g., psychological tests, aptitude tests, role playing, background investigations) are positive predictors of police performance.

**Non-Police Studies**

d. Supervisory Roles in Discipline

- The literature reviewed is silent on this variable.

Organizational Maintenance Activities to Coordinate and Control the Human Enterprise

32. Recruitment, Advancement Systems

a. Recruitment

- Finding that formalized recruitment practices (i.e., advertising for personnel with specific qualifications) has no effect on likelihood of organizations adopting innovations.

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Exhibit D (continued)

<u>Police Studies</u>

<u>Non-Police Studies</u>

- Research finding that police recruit testing systems must be modified if police agencies wish to recruit and hire more minority officers.

- Indication that civil service systems significantly affect police recruiting practices. Where civil service systems exhibit a policy making role, they positively influence police recruiting practices. Where civil service systems take on an adjudicatory role, they negatively influence the formalizing and adoption of more sophisticated selection devices.

b. <u>Advancement</u>

- Indication that individual performance and employee education levels are positively related to the likelihood of promotion; seniority is negatively related to promotion.

c. <u>Performance Evaluation</u>

- Finding that police performance evaluation systems can be effective in accurately predicting performance.

b. <u>Advancement</u>

- The literature reviewed is silent on this variable.

c. <u>Performance Evaluation</u>

- The literature reviewed is silent on this variable.

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| Police Studies | Non-Police Studies |
|---|---|

33. Training Systems

    a. <u>General</u>

- Research findings that total weeks of training has no bearing on police officer attitudes toward lateral entry, towards use of force, or the limits imposed by probable cause in conducting searches and interrogating citizens.

    b. <u>Recruit Training</u>

- Indication that police recruit training programs have no relationship to police officer commitment or to police officer use of discretion, have a positive relationship to the development of dogmatism among police officers, and have a negative relationship to police performance.

- Finding that there is no relationship between police recruit training and feelings of preparedness in handling family disturbances, civil disorders, traffic accidents, narcotics cases, and court appearances.

33. Training Systems

    a. <u>General</u>

- Research finding that training in organizational development increases group cohesion among employees.

    b. <u>Recruit Training</u>

- The reviewed literature is silent on this variable.

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| Police Studies | Non-Police Studies |
|---|---|
| c. In-Service Training | c. In-Service Training |
| • Indication that most police in-service training programs have no effect on police performance. Specifically, training in methods of handling mental health problems has no effect on application of police discretion. Training in community relations programs, however, has been found to have a positive influence on citizen evaluations of the police. | • The literature reviewed is silent on this variable. |
| d. Supervisory/Management Training | d. Supervisory/Management Training |
| • Indication that police supervisory training programs do not satisfactorily prepare supervisors for managerial duties and responsibilities. | • The literature reviewed is silent on this variable. |

## Inferential Findings

The second analytical component for this and other conceptual clusters is the development of inferential findings which in turn facilitate the identification of a knowledge base on the applicable variables within the conceptual cluster. This section of this chapter presents knowledge base strengths and weaknesses produced from this inferential analysis. The discussion of such a knowledge base also includes an examination of the policy relevance of available, sampled empirical research.

This inferential analysis has generated certain specific knowledge about the four sub-cluster topical areas incorporated in this cluster entitled "Organizational Coordination and Control." It should be reiterated here that knowledge as used in this analysis is developed from empirical research that is methodogically sound and is generalizable. Many of the studies reviewed for this cluster, as well as others, developed information and not knowledge. Certain shortcomings in methodology in these studies precluded the produced findings from being generalizable.

The findings for this cluster are presented in order of the four sub-cluster topical areas configured earlier in this chapter. These sub-cluster topical areas are:

1. Traditional, Bureaucratic Modes of Coordination and Control.

2. Non-Bureaucratic Modes of Coordination and Control.

3. Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization.

4. Organizational Maintenance Activities to Coordinate and Control the Human Enterprise.

These four topical areas in sum define managerial concepts and activities specifically structured to guide and monitor the "process" dimension of organizations. The distinctive variables in this cluster all act to move "inputs" or "resources" made available to the organization through some process wherein an output is produced. From the view of a systems model, then, this cluster serves as the throughputs segment of the organization.

From a somewhat different perspective, that of the school of scientific management, the variables in this cluster define those managerial and administrative processes known as "directing," "staffing," and

"coordinating."[35] It also examines that administrative process known as "decision-making."[36] It does not examine those managerial processes associated with principles of "organizing," "planning," or "budgeting." These topics have been addressed in earlier chapters. Research focusing on the informal organization, specifically examining the role of the individual and the group in police organizations, will be analyzed in a forthcoming chapter.

## Traditional, Bureaucratic Modes of Coordination and Control

The classical theory of management and organization as first constructed by Weber (Gerth and Mills, 1958) stresses hierarchically structured organizations wherein work is rationalized and performed according to procedural specifications. Authority in such organizations is delegated from the top of the organization downwards, clearly delineating those actions for which a subordinate is responsible to a supervisor. This school of management also espouses the principles of "unity of command" and "unity of direction" (Gulick and Urwick, 1937; Fayol, 1949) and stresses the need for a limited "span of control" so as to optimize coordination of employees (Gulick and Urwick, 1937). The concepts articulated by these organizational theorists can be transformed to the specific variables aggregated into this sub-cluster topical area; namely:

● Formalization/Written Rules

● Hierarchical Levels

● Span of Control: Manager Ratio

● Administrative Staff and Communication

This is not to say these variables alone constitute all of the managerial concepts incorporated in the classical theory of management. Other concepts, such as "division of labor" and "centralization of authority" are also included in these works. The former has been examined in an earlier

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[35]These elements of the managerial and administrative process were first identified and popularized by Gulick and Urwick (1937:13).

[36]The concept of "decision-making" was examined in the early writings of Henri Fayol (1949) in the context of authority and responsibility and centralization. These two subjects were postulated as general principles of management by Fayol.

chapter of this report.[37] The latter will be addressed in this chapter under the heading of Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization.

What knowledge does empirical research reveal concerning the applications of the principles of the classic school of management in contemporary police administration? Moreover, what lessons can be learned from research in other disciplines and how can it be applied to law enforcement? It is certainly appropriate that these questions be asked, for many authors in police science and administration have advocated the adoption of these principles for many years.[38]

Formalization/Written Rules. Written rules and policies, or written directives, are promulgated by management to apprise employees of the organization's expectations of employees in carrying out day-to-day activities to achieve a desired goal or objective. In policing, the diversity of the goal and task structure and inherent discretion in the police function necessitates that policies, rules, and procedures are developed and disseminated to guide individual behavior. Although this is true for all organizations, it becomes increasingly evident as organizations grow (Inkson, Pugh, and Hickson, 1970; Mansfield, 1973).

Research findings suggest that factors other than size are critical in defining the degree to which rules and policies are formalized. In the general management sample it was found that increasing technological complexity (Pugh, Hickson, Hinings, and Turner, 1969) and a high level of variability in tasks (Hage and Aiken, 1969; Comstock and Scott, 1977) are negatively associated with formalized/written rules. It is likely that these findings are applicable to police. A change in operating style oriented toward greater management control of the work force with greater concentration of management authority also tends to exert a greater emphasis on formalized/written rules (Hage and Aiken, 1967). This tendency has been described in policing as a movement toward a "legalistic" style of enforcement wherein less discretion in enforcement is tolerated by management (Wilson, 1968, Repretto, 1975, Ferdinand, 1976).

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[37] For further information on this topic, see Chapter IV: Internal Structural Differentiation.

[38] See, for example, O. W. Wilson and Roy C. McLaren, Police Administration, 4th ed. (New York: McGraw-Hill, 1977) and George D. Eastman and Esther M. Eastman (eds.), Municipal Police Administration, (Washington, D.C.: International City Managers Association, 1969).

Decentralization of authority, on the other hand, tends to minimize the importance of written rules (Pugh, Hickson, Hinings, and Turner, 1969; Dimieri, 1976). Dimierei (1976) in a study of the New York City Police Department, suggested that such decentralization tends to stress the need for more flexibility in rules and procedures to enable officers to respond adequately to the varying demands placed upon them in a decentralized working environment.

Recognizing this need, researchers from the Boston University Center for Criminal Justice (1978) initiated a project to develop workable policies to guide and control police discretion. This project was spurred in part from other efforts to devise and implement rules to guide police behavior (see, for example, Caplan, 1971; American Bar Association, 1973). The researchers at Boston University sought to influence police discretion by developing flexible policies for criminal investigations. The project utilized a participatory management scheme to enhance employee acceptance of the rules and convened special training programs to promote understanding of the mechanics of the new rules. These efforts, however, did not show beneficial results. The rules did not result in the effective structuring of officer discretion.

This finding is not atypical of other research examining the results of the adoption of formalized/written rules. Other researchers (O'Neill, 1974; Sykes and Clark, 1975) have observed that formalized rules and policies designed to control police discretion do not meet their expected result. Further, Wagoner (1976) has shown that written policies actually promote alienation of police employees. Thus, it is not surprising that the Boston University researchers found that their devised policies had no effect on discretion or on performance (Boston University Center for Criminal Justice, 1978).

These findings parallel those of researchers in other organizational environments wherein formal rules are shown to have little effect on employee attitudes and behavior. In three studies (Rosner, 1968; Hage and Dewar, 1973; Blau and McKinley, 1979), researchers found that formalized/written rules had no relationship to adoption of innovations in organizations. The second study cited here addressed the degree to which observance of rules was correlated with adoption of new programs in health and welfare organizations, while the third assessed patterns of formalization as pertaining to adoption of innovations in architectural firms.

Further, formalized rules have been shown to at best have a neutral relationship and at worst a negative relationship to individual performance, satisfaction, and commitment. Evan and Simmons (1969) found that written rules had no bearing on individual conformance to organizational standards of conduct while Child (1973a) found that structuring of work activities is positively associated with employee-management conflict, but not associated with conforming behavior. Concerning employee satisfaction, Aiken and Hage (1971) and Dewar and Werbel (1979) observed that satisfaction and commitment

decreased as formalization increased, while Baumler (1971) found that written rules and policies have a negative relationship to organizational commitment.

What do these findings suggest for police management? Essentially, it appears that written rules and policies are likely to induce a negative response from employees, although it has been shown that effective training in rules of conduct and supervisory explanations of the reasons for specific rules enhance police officer acceptance of such rules (Macfarlane and Crosby, 1976). Certainly the fact that many police agencies do a less than adequate job in standardizing the development of rules and procedures, training employees in management expectations, and assuring that all affected personnel receive copies of pertinent directives (International Association of Chiefs of Police, 1976), inhibits the likely acceptance of written rules. It may be, however, that police officers are not likely to view written rules and procedures favorably regardless of what actions management takes to promote successful implementation of such rules. Furthermore, the inherent variability in day-to-day tasks in the police occupation minimizes the possibility of successful adoption even if employees were to view rules and policies favorably.

In short, the management and organization attributes associated with adoption of, or decreasing reliance on, formalized/written rules, as well as the apparent consequences of the utilization of such rules, can be depicted graphically as is shown in Figure 12.

Figure 12

RELATIONSHIP TO MANAGEMENT AND ORGANIZATION
ATTRIBUTES TO FORMALIZED/WRITTEN RULES
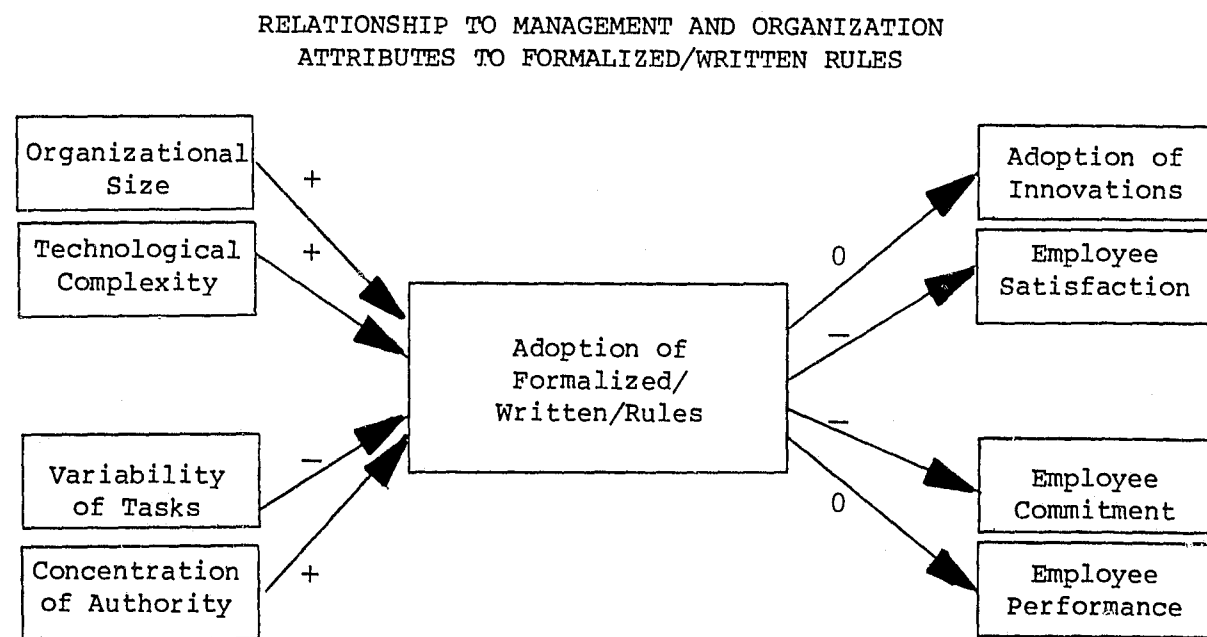
The positing of these relationships by no means suggests that additional research is not necessary to confirm these relationships. Certain of these relationships should be tested in the police environment. Such tests should pay considerable heed to the operationalization of key variables, such as employee satisfaction and performance. Before definitive statements regarding these relationships as applied to policing can be set forth, research should be conducted which concurrently measures other organizational and managerial variables which may have an effect on satisfaction and performance. Studies which incorporate multivariate measures of these variables such as the study by Child (1973a) are needed to help confirm these relationships.

Further, the relationship regarding adoption of written rules and performance is largely based on studies which operationalize performance as conformity to rules and procedures. The question of whether or not formalized/written rules have any bearing on operating effectiveness or efficiency cannot really be answered by this research. Those studies suggesting that written rules have no relationship to control of police discretion (O'Neill, 1974; Sykes and Clark, 1975; Boston University Center for Criminal Justice, 1978) at first glance imply that rules and policies have relationship to operating effectiveness. It may not be possible, however, to infer from these studies that performance is not affected. To do so would be to infer that control of discretion produces operating effectiveness. This conceptual linkage cannot be supported from the research reviewed for this study.

Hierarchical Levels. Classic organizational theory suggests that management can better assure control and coordination of the organization if it structures the enterprise so that lines of authority follow the chain of command ranging from the ultimate authority at the head of the organization to the lowest ranks (Fayol, 1949). Following this principle and that of "unity of command" (Fayol, 1949), organizations have tended to institutionalize hierarchical management structures to control better and coordinate the day-to-day activities of the organization. Specialization of tasks and departmentalization of functional activities act to flatten the organization structure (Rushing, 1967; Meyer, 1968). However, lines of authority within differentiated work units normally follow the same principles associated with hierarchical control and coordination.

Police agencies have been traditionally structured hierarchically with communication patterns and decision-making dictated by the chain of command (McNamara, 1967; Reiss, 1971; Sandler and Mintz, 1974; Reams, Kuykendall, and Bruns, 1975; Guyot, 1979; Shanahan, Hunger, and Wheelan, 1979). This form of organizational structure was adopted primarily to mobilize the police for swift action and decision-making when facing emergency and crisis situations (Sandler and Mintz, 1974). This model also has been institutionalized to achieve greater control over police interactions with the community, thus limiting discretion and the likelihood of corruption. Changes in the police

"operational style" from a "watchman" style of policing to a "legalistic" style often foreshadow a movement toward increased hierarchical structures (Wilson, 1968; Ferdinand, 1976).

What implications does this reliance on hierarchical structures have for the operation and management of the police organization and what influences do such structures have on the informal organization? In addition, what factors in the police working environment tend to foster the adoption and retention of hierarchical control systems? These inquiries were raised in conducting a review of the empirical research on this subject.

The dysfunctions of the hierarchical, command bureaucracy in policing have been acknowledged by several observers of police work (see, for example, Van Maanen, 1972; Rubinstein, 1973; International Association of Chiefs of Police, 1976). These researchers deduced their findings from observations of police agencies and suggest that such a form of organization promotes arbitrary and inconsistent discipline, advancement based on deference to rank and formal rules and procedures (Rubinstein, 1973), and a conformance to authority syndrome "where officers learn that their future is based to a great extent on an unquestioning conformity to the organizational system (Van Maanen, 1972). This ethos is furthered by the socialization process evident in policing wherein police recruits are indoctrinated into the police culture (see, for example, Skolnick, 1966; Niederhoffer, 1967; Wilson, 1968; Bayley and Mendelsohn, 1969; Genz and Lester, 1976).[39]

The bureaucratic model, moreover, has been correlated with low police officer perceptions of role performance and organizational effectiveness (Harrison, 1975). This exploratory study, although suggestive of a relationship between hierarchy and effectiveness, cannot be interpreted as a justification for abandonment of the hierarchical structure. Nevertheless, it does when taken in conjunction with other observations on the bureaucratic, hierarchical model, indicate that such a system is dysfunctional.

Interestingly, another stream in the literature suggests that the "police personality" (Rokeach, Miller, and Snyder, 1971; Bennett and Greenstein, 1975; Lefkowitz, 1975) fosters and encourages the reliance on hierarchical structures.[40] Whether this tendency is due to the socialization process, or to inherent personality attributes in police officers, it indicates that the police prefer a highly structured management system

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[39]Further information on this subject is presented in Chapter IV: Internal Structural Differentiation.

[40]The topic of the "police personality" is examined in depth in Chapter VI: Informal Organization Structures.

(Trojanowicz, 1971; Leireu, 1973) and that they desire standards of conduct closely monitored by management and more stringent than those developed for other governmental employees or the citizenry at large (Macfarlane and Crosby, 1976).

This somewhat conflicting trend in the literature raises still further research questions about the hierarchical structure of police agencies. One is left with the impression that although the police desire a rigid, hierarchical structure where lines of reporting relationships are clearly drawn, the actual application of such a structure leaves much to be desired and fosters dissatisfaction. Although this deduction has been implied through the research alluded to above, there is little empirical evidence to substantiate this relationship. No research studies could be identified in this study which carefully compared the bureaucratic, hierarchical structure to other organizational models.[41]

The general management literature provides some insight into interpretations of the implications of hierarchical structures for policing. This literature also indicates that variability of tasks is associated with hierarchical structures (Stinchcombe, 1959) and suggests that such management and organizational styles are more likely to be found in large as opposed to small agencies (Meyer, 1968; Blau and Schoenberr, 1971). As was the case for the police literature, this research demonstrates that hierarchical structures are either non-related or negatively associated with individual satisfaction (Engel, 1970; Carpenter, 1971; Ivancevich and Donnelly, 1975) and negatively related to adoption of innovations (Ivancevich and Donnelly, 1975). Further, hierarchical structures may actually inhibit organizational effectiveness (Bridges, Doyle, and Mahan, 1968; Fouraker and Stopford, 1968).

These studies at first glance do not indicate many positive benefits of the classic, hierarchical structure. Is this observation true, however, for all organizations? As suggested by Parsons (1960), there are two types of authority in organizations: professional and bureaucratic. Professional organizations, or those with a diverse task structure, rely on rational performance of the work force and self enforced control (Stincombe, 1959). Bureaucratic organizations, on the other hand, rely on hierarchical authority to rationally organize and coordinate work in mass production environments. As demonstrated by Udy (1959) in a study of organization of production in 150 non-industrialized societies, expertness (associated with professional authority) may not be correlated with bureaucracy, but may be an alternative

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[41]The concept of the decentralized, discretionary model of policing has been examined, but not in comparison to the hierarchical structural model. See the sub-section of this chapter entitled "Concentration of Authority" for further information.

to bureaucracy. His study showing that expert qualifications in specialized tasks and functions are not associated with bureaucratic controls gives further credence to the notion that advancing professionalism minimizes the need for hierarchical control.

In applying this to policing, is it possible that police officers viewing themselves as developing professionals consider hierarchical structures to be antithetical to performance?[42] This self perception also helps to explain the tendency of police to expect high standards of conduct. Professionals who are prone to control their own behavior are more apt to expect high standards of conduct from professional peers. The opposing tenet here is that those police officers who do not consider themselves as professionals may desire hierarchical structures to guide and control everyday activity.

The remaining issue of concern here is whether policing is advanced enough as a profession to inculcate management systems stressing professional authority. Perhaps policing is in a stage where developing technical expertise is moving the organization away from hierarchical structure and that greater technical expertise, as suggested by Udy (1959), is a forerunner of professionalism.

In summary, the findings of researchers can be depicted graphically, as in Figure 13, focusing on the concepts of professionalism and division of labor. Organizations with a high degree of professionalism and greater division of labor will experience difficulty in relying on hierarchical authority to control behavior. Alternatively, those organizations with less technical expertise among functions will not experience as much disenchantment among employees with hierarchical structures.

Span of Control; Manager Ratio. A third variable included in this sub-cluster topical area is Span of Control; Manager Ratio. This variable addresses the subject of the number of subordinates responsible to any one manager and in so doing facilitates a consideration of what ramifications for the broader organization are created through variations in this ratio. Classic organizational theory dictates that any manager can only direct a limited number of persons. The manager must then depend on these subordinates to direct others, and then on these employees to direct still others (see, for example, Gulick and Urwick, 1937). Varieties in organizational task and goal

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[42]/Further discussions concerning professionalism in policing are presented in Chapter IV: Internal Structural Differentiation.

Figure 13

RELATIONSHIP OF HIERARCHICAL STRUCTURE TO ORGANIZATIONAL ATTRIBUTES

In Complex Organizations Where Professionaliam is Advanced:



In Less Complex Organizations Where Professionalism is not Advanced:
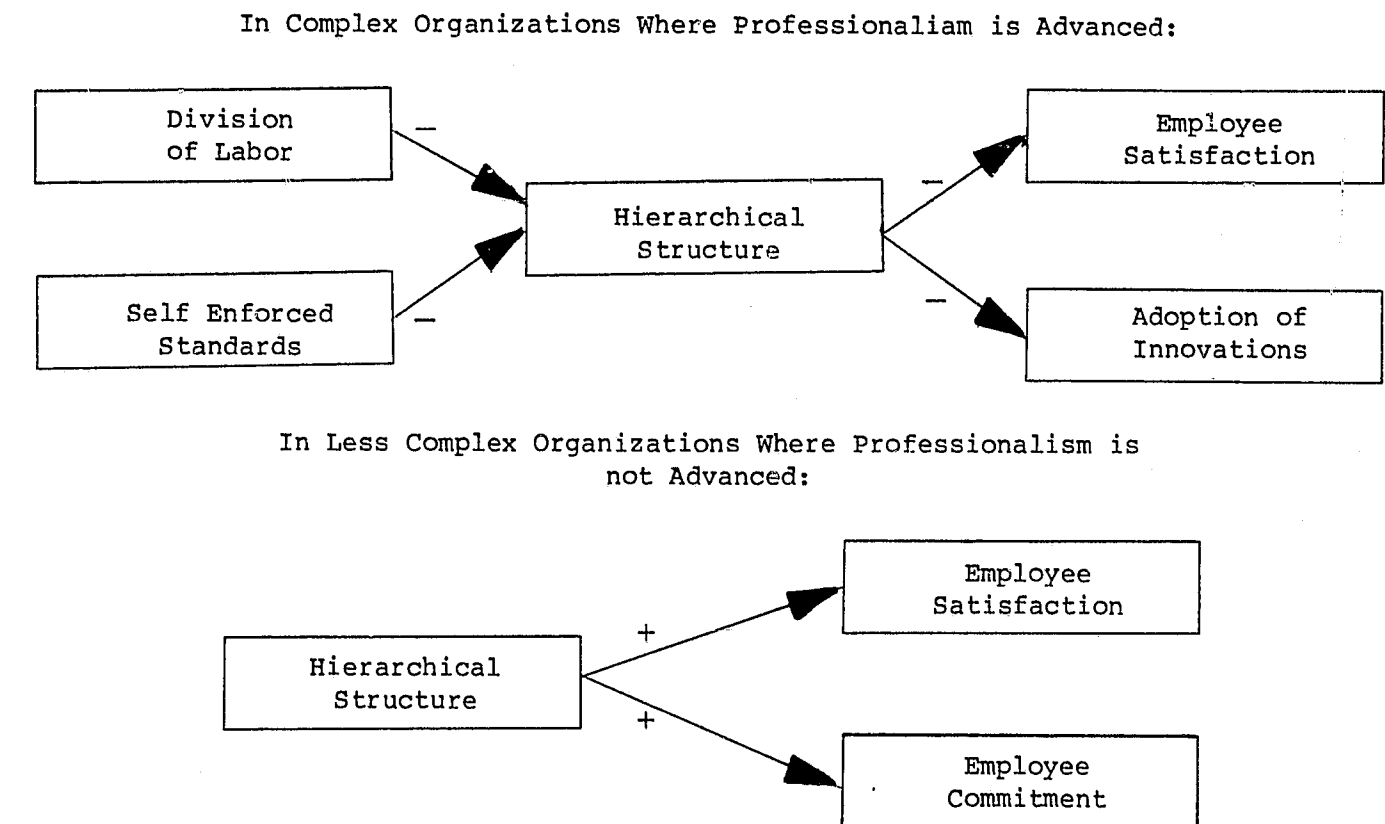


structure impact the appropriate span of control. Two key factors which influence this variable are the technical skill levels and the physical proximity of the work force. As stated by Gulick and Urwick (1937:7):

> Where the work is of routine, repetitive, measurable, and homogeneous character, one man can perhaps direct several score workers. This is particularly true when the workers are all in a single room. Where the work is diversified, qualitative, and particularly when the workers are scattered, one man can supervise only a few.

This principle has been applied to contemporary writings on police administration (see, for example, Wilson and McLaren, 1972:68-70). General management theory has been incorporated in such writings indicating that the span of control may vary for executive positions, such as the office of Chief

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3 OF 5

of Police and other division chiefs, where the span of control more than likely will be small to operating units where similarity in work tasks permits a larger span of control.

Research for this study on police management did not reveal any studies on span of control; manager ratio. This is not to conclude that such research has not been performed, only that results of any such research did not appear in the target journals reviewed for this study and, in addition, were not cited in any such journal articles. Thus any conclusions to be derived relative to the effects of variations in the span of control must be deduced from the general management literature.

A study by Blankenship and Miles (1968) indicates that a larger span of control is likely to be found in organizations where authority is concentrated or centralized. Organizational size does not appear to be a determinant of the span of control (Indik, 1964). Division of labor, however, is shown to be such a determinant. As shown by Blau and Schoenherr (1971), increases in functional and departmental specialization may be accompanied by a smaller span of control. This appears quite logical since greater specialization of tasks will likely produce the need for more supervisors to direct such specialized tasks. As pointed out earlier in this report, however, organization size and structural differentiation are positively correlated, thus larger organizations with greater specialization of tasks are likely to exhibit a smaller span of control.[43]

Division of labor may, in fact, be an intervening factor here. Where division of labor is low and concentration of authority is high, the span of control will likely be high. The positive relationship between concentration of authority and hierarchical levels as alluded to earlier (Hage and Aiken, 1967) also suggests that this relationship may hold for managers in highly structured organizations with centralized decision-making authority. Such organizations may be less likely to place as great a number of managers and supervisors in work units further down the chain of command. A large degree of division of labor, however, may counteract this effect even if authority is concentrated. Supervisors in such organizations may be held responsible for assuring that work is performed according to management expectations but may not be given much authority in the management process. These relationships are suggested by the available research reviewed for this study. However, the small number of studies reviewed precludes developing explicit propositions for this review of span of control; manager ratio.

How can these relationships be applied to police management and

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[43]This relationship is addressed in depth in Chapter III: Complexity of Goal and Task Structure.

administration? It can be inferred that division of labor in policing may have an impact on the span of control in police agencies. A greater degree of specialization and hence differentiation in the structure of police organizations may generate the need for more supervisors. In the context of police organizations, this can apply to specialized functions such as investigations, crime prevention, planning and research, community relations, or tactical operations. The interesting question which remains, however, is how does such specialization affect the span of control in other operational functions, specifically patrol? Does the need for more supervisors in specialized functions mean that the span of control in patrol will increase, or are more supervisors promoted from the ranks to fill the supervisory vacancies? This question cannot be answered based on available research reviewed for this study but would be an interesting subject for further research.

Administrative Staff and Communication. The third variable included in this cluster is Administrative Staff and Communication. Classic organization theory suggests that as organizations become diversified they tend to adopt more functional specialties, thus necessitating functional supervision (see, for example, Fayol, 1949). The opposite tendency is for those organizations with a smaller number of specialized units to create a greater number of staff support positions to respond to variations in workload needs and tasks (Klatzky, 1970; Child 1973c). Size of organization is not as critical to this variation in use of administrative staff as is division of labor (Klatzky, 1970), although the high correlation between size and division of labor often will suggest that both are critical determinants of administrative staff configurations.[44]

The nature of this configuration--that is, relying on a large cadre of managers and supervisors or instituting a large number of staff support positions--will invariably affect the communication process in organizations. A substantial increase in the number of management layers in a bureaucratic structure increases the likelihood that communication from top to bottom, or vice versa, can be misconstrued. An overreliance on specialized staff support positions may produce the same effect. Individuals in such positions are often removed from the chain of command and, therefore, are not part of the general communication flow in the organization.

The police literature sampled for this study does not provide much knowledge concerning administrative staff support configurations. Three studies on team policing programs (Sherman, Milton, and Kelly, 1973; Dimieri, 1976; Schwartz and Clarren, 1977) shed some insight into the impact of

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[44]This relationship is discussed in further detail in Chapter III: Complexity of Goal and Task Structure.

decentralization of police services on administrative staff positions. Schwartz and Clarren (1977) suggest that the implementation of team policing in Cincinnati generated the need for increased reliance on centralized support services to assist patrol operations units in performing the variety of enhanced tasks introduced with team policing (e.g., referrals as alternatives to arrest, information gathering, budgetary analysis). Sherman, Milton, and Kelly (1973) also indicated that there was an increased need for such services although at least one of these functions (dispatching) acted to hamper team policing programs in eight cities (Sherman, Milton, and Kelly, 1973:94). These findings are not unlike those observed by Child (1973c) showing that geographical dispersion is positively associated with increasing numbers of staff support positions.

Decentralization under team policing will likely result in a larger administrative support component, because it generates a greater need for centralized support services and a greater need for management personnel to coordinate team efforts, although this may not require an increase in the number of supervisors. It is likely, however, that this increase may occur. As shown by Rushing (1967), increased problems of coordination in organizations tend to be positively associated with more administrative staff. Thus, it can be inferred that such a change in operations will impact the administrative staff configuration in policing. There will be an increased need for mid- management to coordinate activities more than under previous systems. This is suggested by Sherman, Milton, and Kelly (1973:93) indicating that middle management must assume more of a "support" role to team units than a direct supervision role. This would lessen the need for specialized support services.

It appears then that the specific roles assumed by managers and support functions will determine to a great extent the attendant results of increases in management/administrative staff. One of the critical outcomes of such an increase may be an increase in hierarchical authority and a breakdown in communication within the organization (Meyer, 1968). This may consequently restrict organizational effectiveness (Ouchi, 1977) or inhibit the adoption of innovations (Blau and McKinley, 1979). This is a dysfunction which should be avoided, for communication and feedback to employees is essential for employee satisfaction and commitment (Assael, 1969; Brown, 1969; Klein, Kraut, and Wolfson, 1971; Alderfer, Kaplan, and Smith, 1974). Such breakdowns ultimately may have restricted the possible benefits of team policing programs wherein communication channels were not improved as expected (Dimieri, 1976).

These findings can be graphically depicted as in Figure 14 below. It should be pointed out that the actual characterization of the management role is not incorporated in this graphic because the sampled literature does not necessarily demonstrate that some of the pitfalls of increased administrative/managerial staff can be negated by alternative management

roles.[45] The relationships characterized in this figure certainly could be subjected to testing in a police environment.

Figure 14

RELATIONSHIPS OF ADMINISTRATIVE/MANAGERIAL
STAFF TO OTHER ORGANIZATIONAL DIMENSIONS
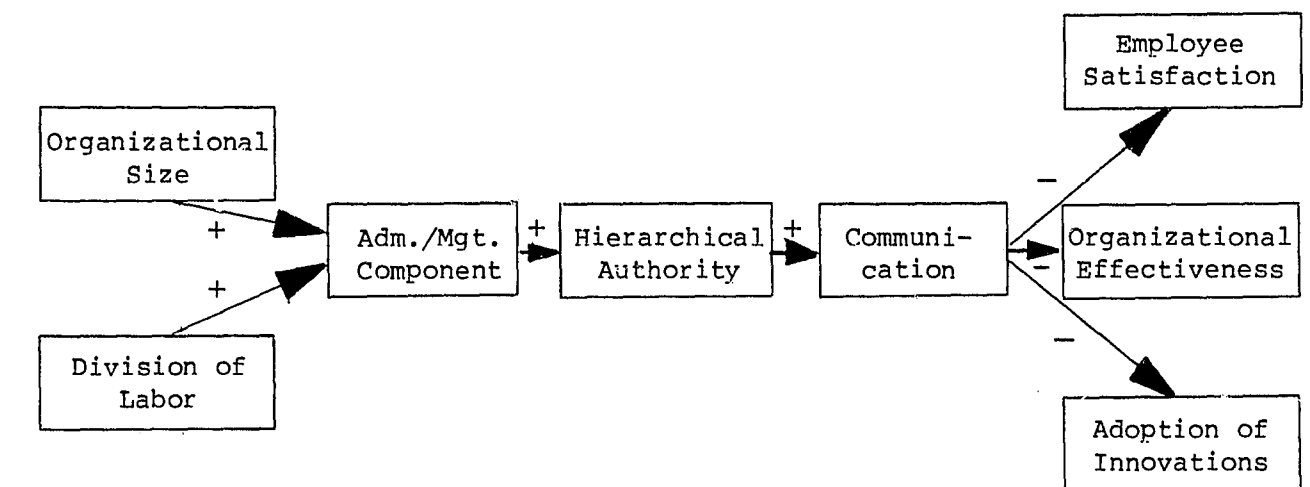


## Non-Bureaucratic Modes of Coordination and Control

The human relations school of management, evolving in the 1940's and 1950's, has endeavored to go beyond the scope of traditional organizational theory based on such principles as task specialization, chain of command, unity of command, and span of control. It has been carried forth largely by psychologists and has as its main thrust the understanding of human interactions in organizations. These scholars and researchers have shown that informal patterns of human interaction deviate from those patterns imposed by the formal organization structure (see, for example, Roethlisberger and Dickson, 1939; Blau, 1960; Likert, 1961). These findings have led other scholars to propose the open system concept of organizations where structure in organizations is defined based on a consideration of patterned activities between any number of individuals (Katz and Kahn, 1966:16). Such interactions

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[45]It should be pointed out here that this discussion pertains to increases in the administrative/management component, not necessarily supervisory/management styles. More information on this topic can be found at a later point in this chapter.

may or may not follow prescribed organizational channels for individuals and tend to combine both autonomous and controlled behavior in organizations, as suggested by Barnard (1938). It is the manager's role, as indicated by Barnard (1938:227) to harness the informal process of interaction together with the formal processes to create a cooperating system.

This section of the chapter will examine four elements of the human relations school. These four variables all refer to managerial efforts to achieve employee integration into the organization and hence an increased sense of commitment to the enterprise. The four variables are:

- Committees.

- Incentives: Material.

- Incentives: Social.

- Incentives: Normative.

This analysis will treat the three variables addressing incentives as one subject.

Committees. The subject of participative or consultative management has been written about extensively in both the management literature and in writings on police science and administration (see, for example, Munro, 1974:168; Whisenand and Ferguson, 1978:41-43). The basic premises of participative management, also referred to as management by committees or by task forces, are those of job enrichment for the individual and integration of individual and group perceptions of needs and problems. As stated by Whisenand and Ferguson (1978:43) quoting studies from the National Training Laboratory, Institute for Applied Behavioral Science, participative management can produce several positive results, such as:

- Increased psychological commitment to objectives.

- Collective sense of purpose and involvement.

- High performance standards.

- Self discipline and motivation.

- Increased enjoyment of job.

- Adaptability to the new and unexpected; feelings that change spell opportunity, and innovation can be fun.

What knowledge can be gleaned from research on the application of participative management in policing and how can knowledge gained from

research in the private sector be applied to policing? The police literature demonstrates that participatory management does have salutary effects. In studies of team policing programs it has been suggested that officer involvement in planning for new programs is critical to successful program implementation (Sherman, Milton, and Kelly, 1973; Schwartz and Clarren, 1977), and that participation in decision-making by officers was positively associated with increased officer satisfaction and feelings of independence (Schwartz and Clarren, 1977).

These studies, although based on actual observations of police agencies, do not include multivariate analysis of the relationship between officer participation and other managerial/organizational factors. Such an analysis was, however, performed by Jermier and Berkes (1979) showing that participatory leadership, as well as task variability, was the most significant predictors of satisfaction and commitment. Participatory leadership styles were found to be correlated with such outcomes, while typical bureaucratic structure measures (e.g., specification of rules and procedures, and work assignment) were not.

Further, a study of police disciplinary processes by the International Association of Chiefs of Police (International Association of Chiefs of Police, 1976; Macfarlane and Crosby, 1976) showed that mechanisms to solicit officer opinion in the development of rules of conduct and operational procedures was associated with perceived quality of written directives. Police agencies which incorporated both informal and formal means of soliciting input (International Association of Chiefs of Police, 1976:95):[46]

. . . seemed to establish the feeling among officers that top level management does have the interests of the troops in mind, and therefore tends to instill greater support for administrative decisions and policies.

These findings are not dissimilar to research results in the private sector. Perhaps one of the most renowned studies of the effects of participative management is a study by Likert (1961) comparing participatory to hierarchical management styles in an industrial setting. Likert (1961:64-67) found that participative techniques resulted in significant increases in employee degree of satisfaction with a supervisor's ability to represent employee needs, perceptions of managers as "employee oriented," and in employee feelings of responsibility to see that work gets done. Likert

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[46] "Informal" in this context refers to a process of the police chief executive taking strides to meet with individual officers on off duty hours to discuss organizational policies and procedures. "Formal" refers to a process of submitting in writing and receiving responses to suggestions for organizational policy or procedural changes.

(1961:71) also concluded that reliance on non-participatory styles can result in short-term successes in productivity, but at costs to the human enterprise, such as "increased hostilities; a greater reliance on authority; decreased loyalties; reduced motivation to produce; together with increased motivation to restrict production, and increased turnover."

Other research studies, however, have shown that participatory management does not necessarily produce greater productivity or satisfaction (see, for example, Fielder, 1966). Palumbo (1969) concludes that the results of participatory management are dependent on the skill levels of workers: more skilled workers desire greater input in decision-making.

The findings then concerning participatory management are mixed. As suggested by Strauss and Rosenstein (1970:171) based on a study of worker participation in eight countries, the chief value of participatory management may be its tendency to promote a vehicle for resolution of conflict in order to induce compliance to directives. The use of committees can, therefore, be said to produce benefits from an employee attitudinal perspective, but may not influence greater productivity.

From another perspective, social scientists have also examined the influence of extra-organizational conditions on participative management. The subject of environmental uncertainty has been discussed elsewhere in this paper.[47] A perceived change by managers or supervisors in economic situations, legal/political autonomy, or regulatory autonomy have been shown to generate increased internal uncertainty, thereby stimulating managerial action to adapt the organization to its environmentally induced changes. One such action is increased reliance on employee involvement in decision-making or a more open structure of soliciting input (Lawrence and Lorsch, 1967; Duncan, 1973; Pennings, 1975). Encouraging such input has been shown to influence changes which ultimately improve organizational effectiveness, usually defined here as adaptation to environmental changes (Lawrence and Lorsch, 1967; Duncan, 1973).

These same authors have shown that organizations with a high degree of task interdependence (i.e., differentiation) are likely to initiate participative management schemes to respond to environmental changes. This suggests that perceived environmental uncertainty alone is not sufficient to induce management to form committees to consider changes in organizational structure or policies. Organizations having greater hierarchy in structure may be less likely to initiate such participative decision-making.

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[47]This subject is examined in greater detail in Chapter II: Environment and Organizational Autonomy.

Participative management systems cannot necessarily be implemented without organizational difficulty. Experience in policing has shown that apparent participatory management schemes where employees are asked to approve plans already developed is not sufficient (Sherman, Milton, and Kelly, 1973:63-64). Similarly, the use of outside consultants in policing may jeopardize the ultimate benefits to be derived from participatory management if the consultants and police managers do not make it known that police officers and not consultants are responsible for program planning (Sherman, Milton, and Kelly, 1973).

In summary, it can be stated that the push for participatory management often stems from perceived environmental changes and that structurally differentiated organizations may be more apt to implement participatory systems. The apparent benefits of such management, as demonstrated in policing and in other organizational settings, are a feeling of greater involvement on the part of the worker and a greater likelihood of accepting prescribed standards of conduct and policies. This tendency may be more prevalent for highly skilled as opposed to lower skilled workers. The ultimate effects of participatory management on productivity or effectiveness cannot really be shown, at least based on studies reviewed for this project. A number of relationships, however, may be depicted as in Figure 15 below.

Figure 15

RELATIONSHIPS OF PARTICIPATIVE MANAGEMENT TO
OTHER ORGANIZATIONAL/ADMINISTRATIVE VARIABLES
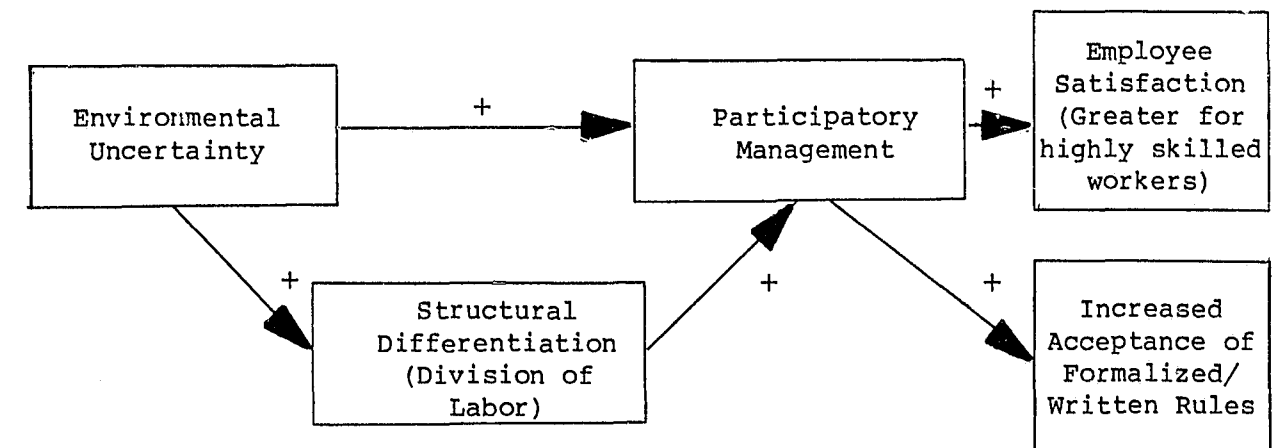
Employee Incentives. Incentive systems constitute another set of non-bureaucratic modes of coordination and control. These systems are also derived from the human relations school of management and focus on the need to induce desired employee behavior through means other than bureaucratic controls. The recognition of the need for incentive systems stemmed initially from the realization that employees have a hierarchy of needs to be fulfilled in the work environment. This was based on the work of Maslow (1954) suggesting that all individuals have basic needs: physiological, safety or security, love and belongingness, esteem or status, and self actualization.

Other researchers have expanded on this theory developing various observations about how different incentives motivate different workers. In an analysis of these various systems, Clark and Wilson (1961) state that there are material, solidarity, and purposive incentives based respectively on material or monetary, status and sociability-related, and normative-ideological rewards. It is these three forms of incentives which have been incorporated into the framework for this current study. In this study, the three types of incentives are classified as material, social, and normative.

Research studies in police science and administration, based on the sample for this current research, have focused primarily on material incentives and to a lesser degree on normative incentives. No studies on the application of social incentives were located for this project.

The sampled literature indicates that expenditures for police personnel appear to have no relationship to organizational professionalism (Pursley, 1976) and that education levels in policing have no bearing on material incentives (Barry, 1978). This last research suggests that variations in police officer education are not accompanied by variations in incentives. Both of these studies are exploratory, however, and do not necessarily posit a knowledge base. Pursley's study in particular may be questioned on methodological grounds. He utilized expert opinion of police executives to define professional as opposed to traditional police agencies, and further employed only descriptive statistics in his analysis. Consequently, there is a need for additional research to further examine the findings produced by Pursley (1976), as well as those of Barry (1978).

Two other studies in the police sample provide information concerning the use of material incentives by police managers. A study by Greisinger, Slovak, and Molkup (1979) of the impact of civil service systems on policing in 42 cities showed that civil service systems that tended to exhibit either an administrative or regulatory role restrain police managers from instituting pay incentive systems (1979:133). This study differentiated the roles of civil service systems as either policy formulating, adjudicatory, administrative, regulatory, or advisory. As suggested by Greisinger, Slovak, and Molkup (1979:131), "there is a discernible hierarchy of roles played by civil service commissions or personnel boards." This hierarchy respectively follows the listing of civil service roles itemized above with the policy

formulating role located at the apex of the hierarchy and the regulatory role at the bottom. As defined by Greisinger, Slovak, and Molkup (1979:XIV, 131), administrative roles are largely "housekeeping" in form, administering routine personnel operations, while regulatory roles are found in cities where the civil service function takes on the capacity of a monitor, reviewer, and regulator of decisions and actions of other city agencies. The significance of this study is that it demonstrates that options to employ material incentives to improve performance in policing are on occasion beyond the control of the police chief executive.

An additional study by Alex (1969) shows that decisions to utilize material incentives may affect certain segments of the police agency more than others. Alex demonstrated that material motivations (salary and security) are stronger motivations than family influences or normative incentives, inducing black officers to join the police force. Alex's study is qualitative in design, however, and does not distinguish between black and white officers. Thus, one cannot conclude that white officers in the department studied (New York) were motivated differently.

This issue is addressed by Kelly and West (1973) in a study of black and white officers in the Metropolitan Police Department in Washington, D.C. These researchers show that a higher percentage of black police officers join the force for "police orientation reasons" (normative incentives) than do white officers. Their research results, conflicting with Alex's findings, are also supported by a study of police applicants (Hunt and Cohen, 1970) wherein it was concluded that "Black and Puerto Rican youths, unlike their white counterparts, find the service aspects of police work more attractive than the pay, fringe benefits, or job security" (Hunt and Cohen, 1970:xiii).

The Kelly and West study (1973), however, includes primarily bivariate statistical techniques (Chi Square) and, while it does analyze differences in personal demographic data between white and black officers, it does not conduct multivariate analysis of many personal attributes which may influence an individual to join the police force.

These studies do not provide any conclusive findings concerning the effects of material incentives. Several of the reviewed studies use exploratory designs and qualitative analytical methods and, therefore, cannot be said to produce generalizable findings. Thus it is not possible at this juncture to assess accurately the ramifications of material incentive systems in policing.

The general management literature provides some assistance in assessing such ramifications. Rosner (1968), in a study on 24 short-term voluntary hospitals, concluded that economic incentives are positively associated with innovation (in this case defined as the adoption of new drugs). Further, Pfeffer and Lawler (1980) showed that material incentives may have positive effect on an individual's job satisfaction, although

behavioral commitment, often associated with length of time in the job, influences this relationship. Employees not behaviorally committed showed a positive relationship between salary and satisfaction. Committed individuals, on the other hand, did not sho this relationship. This finding conflicts to a degree with the suggestion of March and Simon (1958) that when extrinsic rewards are reduced, the attitudes of the persons toward the task or the organization should become less favorable. Thus, the offering of material incentives may not have the same effect on all employees.

This raises the question of what effect other incentives (i.e., social and normative) have on employees. Sheldon (1971), in a study of research scientists, has shown that social involvements do have a positive relationship with employee commitment to the organization, but the "investments" (defined as age, tenure, and hierarchical rank) have a more influential effect on individual commitment. This finding is supported by research by Rossel (1971) through which he showed that greater hierarchical structure influences social incentives and hence social cohesion. These studies indicate that social incentives are important, but only when other individual "investments" are realized.

Normative incentives have been shown to be positively associated with employee satisfaction, commitment, and performance (Hall and Lawler, 1970). These researchers define normative incentives as feelings of job challenge, involvement, and degrees of responsibility. Research in the police environment supplements this work. Aldag and Brief (1978) found that greater normative incentives (defined as experiencing meaningfulness in the work place) reduce police officer alienation from the organization.

Several administrative and organizational characteristics have been shown to influence these feelings. Hill and French (1967) found that collegial models of decision-making were positively related to perceptions of importance in the work environment. Payne and Mansfield (1973) researched organizational climate in 14 different private sector organizations and found that feelings of intellectual challenge and readiness to innovate (normative incentives) were more prevalent in large organizations that were dependent on outside resources—that is, had more resources being funneled into the organizations. This latter finding is similar to that of Hall and Mansfield (1971) showing that cutbacks in the economy due to a recession reduce intrinsic motivations and job involvement. Finally, the study by Payne and Mansfield (1973) indicates that lack of autonomy negatively affects achievement of normative incentives.

Considering these factors simultaneously, it can be concluded that research has shown that normative incentives are positive in nature and if realized may result in greater job satisfaction, commitment, and performance. However, environmental and organizational factors often restrain the achievement of such incentives. In particular, a reduction in resources available to the organization and a lack of individual autonomy may inhibit

the fulfillment of feelings of meaningfulness and intellectual challenge in the work place.

From the perspective of police administration and management, this suggests that reductions in police discretion (similar to autonomy) may restrict achievement of normative incentives. In addition, officers in organizations with a more secure resource base may be apt to realize greater feelings of importance in their job. Size of police agency may have an influence on this relationship if larger agencies have more available funds.

In summary, it can be concluded that the literature reviewed here provides several answers to the question of what significance employee incentives have on police organization and management. The literature providing such answers is largely located in non-police disciplines. Many of the findings in these disciplines, however, may be applicable. Most of the research on incentives in policing is fairly limited in methodology, at least that research sampled for this project. The findings from those studies addressing incentives can be summarized as follows:

- Civil service systems which exhibit administrative or regulatory roles may restrain the police manager from utilizing material incentives to increase performance and/or satisfaction.

- There is a conflict in the literature concerning the influence of material as opposed to normative incentives on the recruitment of black police officers.

- Research in the private sector indicates that economic incentives may positively influence adoption of innovations and satisfaction, but this relationship is affected by an employee's behavioral commitment to the organization: where behavioral commitment is high, a reduction in material benefits may not be accompanied by a reduction in job satisfaction.

- The realization of social incentives in the work environment has a positive relationship to individual commitment, but this relationship is affected by age, tenure, and hierarchical rank: where these factors are high, the relationship between social incentives and commitment may not be as pronounced.

- Normative incentives are positively related to employee satisfaction, commitment, and performance, but the achievement of normative incentives is negatively affected by decreasing resources in the organization and lack of autonomy.

## Management/Supervisory Systems of Coordinating and Controlling the Human Enterprise Within the Organization

The third sub-cluster topical area addresses managerial behavior in organizations. Specifically, this section examines empirical research findings pertaining to managerial and supervisory methods of coordinating and controlling human behavior. Previous sections have focused on organizational structure or sociological and psychological methods of coordinating and controlling behavior. The variables in this section examine three topics of direct concern to all managers: individual autonomy and how it can be coordinated and controlled, concentration of authority and management decision-making, and supervisory techniques and styles of monitoring performance. The three variables examined in this section are:

- Discretion.

- Decision-making systems.

- Employee coordination/control.

Discretion. The police science literature is replete with research on police discretion. These studies generally fall into one of two methods of examination of this phenomenon--its application by police officers and how such application affects citizens and its control, or how management attempts to guide and structure police discretionary behavior. This analysis of discretion will analyze each of these treatments of this variable separately. It should be pointed out that discretion is virtually synonymous with individual autonomy in the work place. The sampled studies in the non-police arena define this variable in the context of autonomy, not discretion.

The topic of the application of police discretion has been discussed in depth in an earlier chapter of this report.[48] This topic was diagnosed from the perspective of how interrelationships between citizens and officers affect police discretion. In brief, the literature reviewed here and discussed in Chapter II demonstrates that demeanor of the client (suspect or complainant) affects the application of discretion. Where deference is offered by the citizen to the police officer, the officer will show more respect to the citizen and more likely comply with his or her wishes (Piliavin and Briar, 1964; Sykes and Clark, 1975). Secondly, it has been demonstrated that discretion is also influenced by community norms and by the specific interests of particular citizens, either complainants or bystanders (Black and Reiss, 1967; Black, 1970). This chapter will not re-explore these issues, but

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[48]This topic is examined in Chapter II: Environment and Organizational Autonomy.

address other administrative/managerial issues having an effect on the application of discretion.

Several studies in police science and administration have shown that the application of police discretion affects the quality and quantity of law enforcement (Goldstein, 1960; Banton, 1964; Skolnick, 1966; Bittner, 1967b; Wilson, 1968; Reiss, 1971; Rubinstein, 1973; Muir, 1977). These studies have shown that discretionary actions often result in nonenforcement of the law or selective enforcement against certain classes of citizens, citizens involved in certain situations where enforcement becomes the most viable alternative for resolving the problem. What organizational factors have been identified as having influence on the application of discretion?

Two studies have shown that peer influence has a significant impact on the application of discretion. Petersen (1971) has demonstrated that the influence of the work group on the behavior of the uniformed traffic officer is evident in the handling of traffic tickets. Petersen indicates through a qualitative discussion that an informal quota system is the prime determinant in the number of traffic tickets written per month. An officer who exceeds a certain informally set standard of number of tickets written will be viewed scornfully by fellow workers. This peer pressure has also been observed by Banton (1964); Skolnick (1966); Skolnick and Woodworth; and Gardiner (1968); showing that intense group cohesion mediates the amount of actual enforcement in a variety of police functions. As stated by Banton (1964:117):

> The (police) locker room decides informally, and perhaps even without realizing that it is doing so, just how much work is to be done. If a man shows up his colleagues by working too hard, or if he is lazy and wants to spend most of his night shift sleeping in the car, or if he carries tales to supervisors, then the others will ostracize him. His partners will ask to be put with someone else and, if no one wants to work with him, then there is little chance that his superiors will view him with favour either.

A study by O'Neill (1974) further confirms the influence of peer pressure on police actions. Through a multivariate analysis of several attitudinal data affecting police role expectations bearing on the application of discretion, such as personal demographics, length of service, functional assignment, clientele confronted in day-to-day activities, peer group interaction, and supervisory influence, O'Neill (1974:171-172) found that the work group had the most relation to an officer's role expectation. This influence was stronger than any other variable measured, although race and education appeared to exert a slight influence on officer propensity to apply discretionary actions.

The finding that education appears to affect discretionary action matches the finding of Finckenauer (1975) wherein he showed that college

educated recruits were less likely to invoke the criminal process in a number of operational situations.

Similarly, O'Neill's observation that a police officer's rank may influence his or her discretion has also been noted in previous research (Alex, 1969). O'Neill (1974:172) considers the relationship of this observation and the indication that education appears to affect role expectations and concludes that education and race may act as sub-cultural influences on discretionary action and role expectations within the work group. These individual attributes are important, but primarily in the context of the social group.

Studies by Walsh (1973) and Schaefer (1978) provide evidence of still further differentiation in personal characteristics which may influence discretion. Walsh analyzed self perceived professionalism in police officers from Ireland and the Netherlands, as measured through an attitudinal instrument, in an effort to show how such perceptions (measured as low, medium, and high) affect law enforcement tendencies. Walsh showed that officers who viewed themselves as more highly professional were more apt to exchange favors with individuals giving a potential arrestee a "break" in exchange for information which could be used for broader enforcement purposes. Walsh's study, however, is qualitative and does not include multivariate analysis of many of the factors noted above which may also influence discretion.

A final determinant of discretionary action is managerial influence. Studies by Skolnick (1966), Wilson (1968), Gardiner (1969), and Lundman (1979) suggest that quota systems or performance norms in policing affect the application of discretion. These studies indicate that a police chief executive may influence discretionary decisions, but that the effect is usually short lived. By cracking down on traffic citations, incidents of disorderly conduct, drug arrests, or other community problems, a police administrator may achieve some temporary influence. However, the myriad of police functions and conflicting demands for resources usually makes this influence temporary at best. Further, such influence is usually demonstrated only for incidents where formal processing occurs (e.g., arrests, tickets, warnings). It is much more difficult to impact other police activity where no involvement in criminal processing or formal records of activity are generated.

These studies indicate that a variety of factors influence the application of discretion. Unfortunately, the sampled literature does not yield sufficient evidence upon which to base a theory of predominant influence. A majority of the studies sampled in policing are only qualitative and thus do not include multivariate analysis of these diverse variables. The study by O'Neill (1974) comes closest to including such an analysis, but his data are attitudinal and not behavioral. It would seem premature to derive a theory using only attitudinal data. Thus, it can only be concluded that a

number of variables: environmental (including community cultural and demographic factors), situational factors (attitude of citizen, presence of bystanders), peer influence, personal police officer characteristics (primarily race and education), and supervisory quotas all have an impact on the application of discretion. Further research examining the use of discretion in a variety of police functions (e.g., patrol, traffic, investigations) would be beneficial in isolating the various effects of these factors. Figure 16 depicts the relationships of these variables on police discretion.[49]

Figure 16

RELATIONSHIPS OF ENVIRONMENTAL, SOCIAL, PERSONAL,
AND SUPERVISORY INFLUENCES ON POLICE DISCRETION
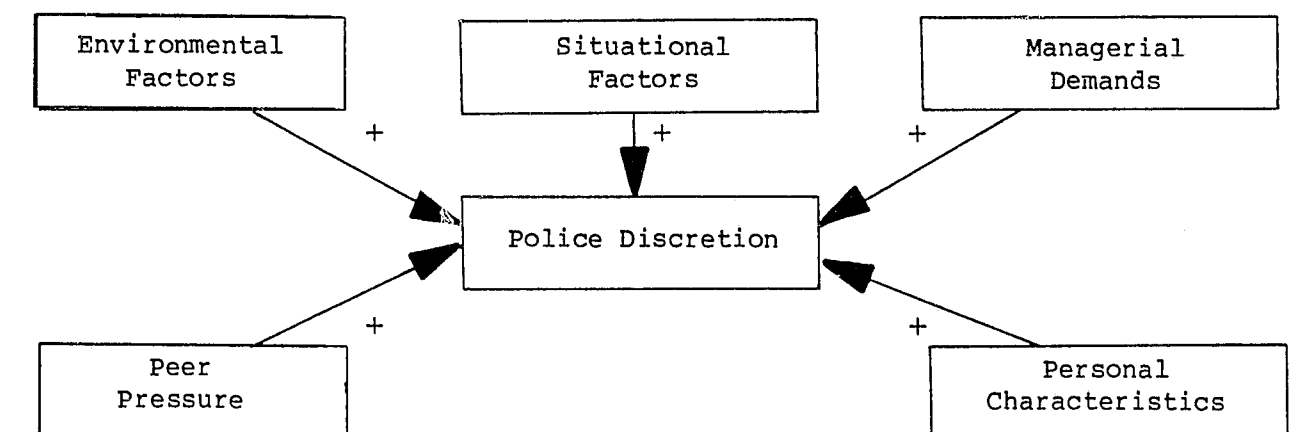


If, in fact, discretionary action is influenced by these various contingencies, what role do managerial actions, other than implementing a quota system, play in the coordination and control of discretion? Specifically, what influence do rules and procedures, training, and supervisory action have on the application of discretion? The sampled literature provides some insight into the relationships between these factors and coordination of discretion.

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[49]This diagram was extracted by O'Neill's (1974:34) dissertation on police role expectations. The model posited here is a modified version of O'Neill's model.

A study of discretion and arrest by Sykes, Fox, and Clark (1976) in three midwestern communities indicates that rules and procedures are needed to govern those incidents where discretion without an arrest option or discretion limited to arrest are not applicable. These so-called "low visibility" encounters are those where situational enforcement is most likely to occur. Considering this fact, researchers at the Boston University Center for Criminal Justice (1978) initiated a project to implement model policies to guide discretionary actions in such situations. These researchers found, however, that such policies did not have the desired effect, because there was no means of assuring compliance to these policies or of providing positive incentives (in the way of rewards) for police officers to comply.

Training, similarly, has not been found to lead greater control of discretion. A study by McNamara (1967) was perhaps the first to show that recruit training in particular does not have the desired effect of guiding officer actions as to when to enforce the law. Blankenship and Cramer (1976), in addition, show that training in techniques of handling mental health problems do not affect police discretion in such situations.

Supervision has also been shown to have little effect on discretion (Skolnick, 1966; Moran, 1979), with the exception of urgings of supervisors to have officers reach performance norms, as discussed above. Skolnick (1966) elaborates on this issue stating that the police occupational culture shields officers from sanctions imposed by supervisors and sometimes leads officers to questionable behaviors on their own. This argument again emphasizes the significance of the work group in influencing discretion.

Tifft (1975) has examined the relationship between supervision and control of officer behavior. Tifft (1975:71) shows that the police patrol sergeant is in a relatively weak structural position to control individual behavior or to exercise influence on subordinates. The variety in police situations encountered, coupled with the relatively vague nature of many police departmental guidelines, tends to strengthen the operational application of discretion and limit the supervisor's power. Tifft (1975:71) concludes that the patrol supervisor's influence can only be heightened by an altering of the social bases of power in the police agency. This conclusion is also suggested by Moran (1979) indicating that current supervisory styles are not conducive to coordinating activity in an occupation with much discretion.

These findings indicate that police management actually has very little control over discretion. If this is so, what actions can be initiated to coordinate better police actions? Research in other disciplines helps to answer this question. Payne and Mansfield (1973), in a study of organizational climate, suggest that lack of autonomy among employees restricts the achievement of normative incentives and commitment to the

organization. Further, Hall (1967) has shown that greater autonomy for employees tends to restrict achievement of social incentives while not affecting group cohesion.

The implications of these studies for police are that a greater recognition of the need for autonomy may yield salutary effects on individual commitment and decrease some of the negative factors resulting from peer influence. The achievement of this desired effect, however, would not be easy. As shown by the studies of Tifft's (1975) work and the Boston University Center for Criminal Justice (1978), such a change would necessitate alterations in the reward systems in policing and would mandate a new role for police sergeants.

In summary, it cannot be concluded, based on research reviewed for this study, that present research has yielded much constructive knowledge about the control and coordination of discretion. Such research has indicated that many variables tend to influence the application of discretion, but even this research does not help in pinpointing the main determinants of such discretion. In short, additional research is needed to further isolate these effects and to understand optimum control and coordination methods better.

Decision-Making Systems. The second variable in this sub-cluster topical area is decision-making systems. Because the vast amount of literature sampled examining this variable focused on decision-making as a function of concentration of management authority, this is the predominant subject of this section.

Analyses of the concentration of management authority is often addressed in the context of centralization vs. decentralization of decision-making authority. This topic has been the subject of a considerable number of investigations by social scientists (see, for example, Hage and Aiken, 1967; Pugh, Hickson, Hinings, and Turner, 1969; Inkson, Pugh, and Hickson, 1970; Pheysey, Payne, and Pugh, 1971; Hage and Dewar, 1973). These researchers focus on the issue of centralization because it pertains to the locus of decision-making authority in organizations. Such research is likely to include inquiries as to the final decision-making authority before legitimate action is taken--even if others in a decision-making hierarchy must subsequently confirm the decision (Pugh, Hickson, Hinings, and Turner, 1968). Often, this topic is incorporated into analyses of organizational structure and considered a measure of formal, bureaucratic organizational coordination and control mechanisms.[50] This attention on centralization, it should be emphasized, does not necessarily imply analyses of geographical

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[50] For this reason, this variable could have arguably been analyzed in conjunction with other variables measuring this topic and appearing in an earlier section of this chapter. The decision to examine this topic here was made to accommodate the various police studies.

location of decision-making. Rather, it pertains to the organizational locus, which may or may not necessitate an analysis of geographical location of decision-making.

These studies in the social science arena constitute the primary data base for analyses concerning concentration of authority. The police literature sampled for this study contained only a small number of analytical investigations of this variable. The police studies which do analyze this topic do so in conjunction with other measurements of the impact of team policing programs (Sherman, Milton, and Kelly, 1973; Dimieri, 1976; Schwartz and Clarren, 1977). Such research does not include in-depth analyses of the ramifications of shifts in locus of decision-making authority. Instead, such research investigates the benefits or dysfunctions of decentralization of a new program or critical component of the police function.[51] Team policing by definition incorporates many administrative and managerial changes, only one of which is decentralization of decision-making authority. It is difficult, therefore, to develop from these studies a sound knowledge base concerning the effects of decentralization of decision-making authority.

The implications posed by these research efforts are that decentralization in a team policing program produces improved police-citizen relations (Sherman, Milton, and Kelly, 1973; Dimieri, 1976; Schwartz and Clarren, 1977), improved officer satisfaction with their job (Schwartz and Clarren, 1977), increased social cohesion among the work force (Dimieri, 1976); increases in the size of administrative and support component to manage the decentralized operation (Dimieri, 1976; Schwartz and Clarren, 1977); by a decreased reliance on formalized rule (Dimieri, 1976), although there was still a need for flexible policies under decentralization as shown by Dimieri (1976), increased organizational effectiveness (Schwartz and Clarren, 1977) as measured by increased arrests for burglaries. As shown by Schwartz and Clarren, however, this improvement in effectiveness was not sustained over an extended period of time.

How do these results compare with findings in the general social science disciplines? Similar to the police research, such studies indicate that concentraion of authority (centralization) is negatively associated with social cohesion among employees (Pheysey, Payne, and Pugh, 1970; Child, 1973a), and employee satisfaction (Aiken and Hage, 1968; Cohen, Robinson, and Edwards, 1969). This decreased satisfaction may be accompanied by a

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[51] Such studies usually have as their primary evaluation objective the determination of changes in organizational outcomes produced by such a program. Among those outcomes invariably measured are arrest rates, clearance rates, citizen perceptions, and officer satisfaction.

decreasing conformity to organizational and managerial policies (Child, 1973a) and less reliance on structured rules to guide activities and behavior (Hage and Aiken, 1967; Inkson, Pugh, and Hickson, 1970). This latter study suggests that a decreasing concentration of authority seems to follow a structuring of activities, indicating that as management enacts structured rules to govern behavior in work units there is a concomitant decreasing of the concentration of authority in the work environment.

What knowledge can be transferred from this sampling of literature concerning the relationship between decentralization and organizational effectiveness? Only one study examined researched this relationship and found, through an experimental investigation of the effects of concentration of authority on the work unit's ability to solve organizational problems, that a decentralized system was most effective (Cohen, Robinson, and Edwards, 1969). The results of this study are complemented by those of researchers investigating the effects of environmental uncertainty on management practices. As observed by Negandhi and Reimann (1975) and Pennings (1975), increasing environmental uncertainty (due to perceived instability or change in economic conditions, legal/political autonomy, or regulatory conditions) will result in a decreasing concentration of authority, greater participation of the work group in problem solving and developing new ideas, less formalism, and increased adaptability to the environment (a measure of effectiveness).

The general management literature also provides insight into what organizational characteristics are associated with concentration of authority. As shown by Hage and Aiken (1967) and Blankenship and Miles (1968), hierarchical structural levels are positively associated with concentration of authority. These latter researchers also found span of control; manager ratio to be positively associated with concentration of authority (i.e., larger spans of control are found when authority is centralized).

Researchers have also noted that increasing technological complexity is negatively associated with concentration of authority (Pugh, Hickson, Hinings, and Turner, 1969) and that increasing task variability is negatively correlated with concentration of authority (Hage and Aiken, 1969; Pugh, Hickson, Hinings, and Turner, 1969). Interestingly, it has also been observed in the study by Pugh, Hickson, Hinings, and Turner (1969) that size of organization is not related to concentration of authority.

The amount of research on this topic makes it possible to synthesize these findings and develop a list of propositions concerning centralization of authority. Such a list has been derived and is presented below. These propositions appear to be applicable to a variety of organizational disciplines including law enforcement.

1. Organizations with a high degree of variability in task structure and high levels of technological complexity are more likely to decentralize decision-making authority than organizations with a routine task structure and less technological complexity.

2. Organizations exhibiting a hierarchical structure and large spans of control are more likely to rely on centralized decision-making systems than are organizations that do not have hierarchical structures and low spans of control.

3. Perceived change in the organizational environment (environmental uncertainty) is likely to be followed by greater decentralization of authority and subsequent adaptations of the organization to environmentally induced changes.

4. A greater decentralization of decision-making authority is conducive to the resolution of organizational management problems.

5. Increasing formalization of written rules and procedures is more likely to be found in organizations where management centralizes decision-making.

6. Organizations which decentralize decision-making are likely to realize an increase in employee satisfaction in individual work units and greater social cohesion among and within such work units.

These relationships can be depicted graphically as shown in Figure 17 below. It should be stressed here that these relationships are based on a relatively small sample of research studies in the general management discipline. Thus, additional research may provide confirmation of these findings, or discover conflicting results as observed by other researchers examining management and organization practices.

What implications do these relationships have for police administration and management? First, it should be pointed out that these relationships do not necessarily indicate that organizations with a decentralized decision-making structure are in the long run more effective. The literature on environmental uncertainty suggests that decentralizing decision-making authority fosters adaptation to environmental changes. The achievement of this goal does not, however, presuppose that such adaptation

Figure 17

RELATIONSHIPS OF CONCENTRATION OF AUTHORITY TO
OTHER MANAGEMENT/ORGANIZATION DIMENSIONS
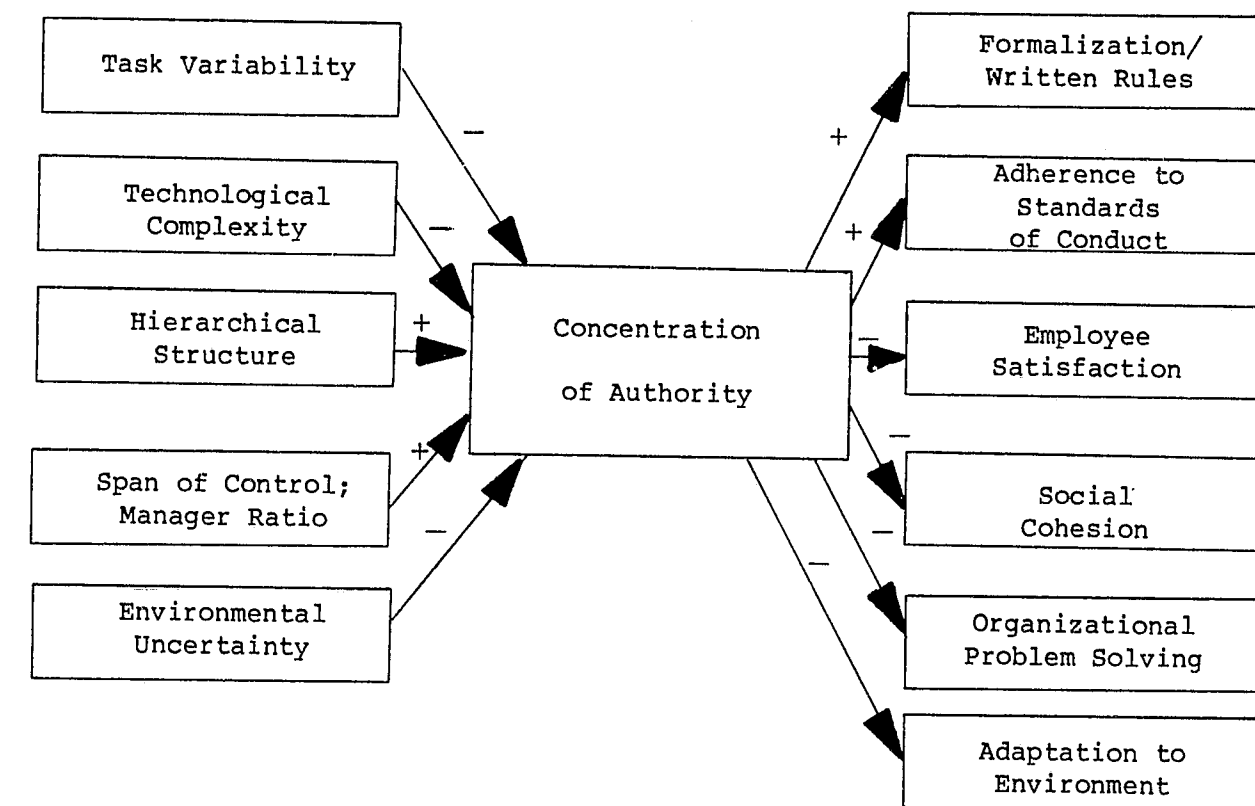


will automatically produce sustained improvements in effectiveness. As noted in the evaluation by Schwartz and Clarren (1977), the advent of team policing in Cincinnati was followed by improved increases in police-citizen relations, greater satisfaction of police officers, but only a short-term improvement in organizational effectiveness.

Police managers considering decentralization of authority may then experience some benefits in employee relations and perhaps in relations between the police and the community. At what cost may these outcomes be achieved? They may be realized perhaps only if police organizations relinquish their adherence to hierarchical management structures and rigid rules and procedures. Such changes may be abhorrent, however, to some police

managers. In their view, which may be well founded in many jurisdictions, the police function by nature presents too many opportunities for misconduct or lack of adherence to management standards of conduct and that these possible transgressions can only be controlled through centralized control and formalized rules, regulations, and procedures.

In summary, there appear to be several advantages and disadvantages of a decentralization of authority, but the ultimate result--that of what sustained effect decentralization will have on effectiveness and efficiency-- has not really been demonstrated, at least in the research reviewed for this study. Additional research in police organizations would help to confirm these noted advantages and disadvantages and provide additional knowledge concerning the relationship of concentration of authority to organizational outcomes.

Employee Coordination/Control. The third and final variable addressed in this sub-cluster topical area is employee coordination/control. This variable encompasses a number of management tasks and activities undertaken to control and coordinate work tasks and ensure maintenance of the human enterprise within the organization. Specifically, three elements of the management process are subsumed under this variable and addressed in this section. These three elements are: supervisory styles in coordinating/controlling the work effort, management and supervisory roles in evaluating performance, and management and supervisory roles in the disciplinary process. These three topics are discussed in this section.

A considerable number of prescriptive texts have been authored concerning the exercise of supervision in policing.[52] These texts contain a number of recommendations for achieving supervisory practices. How well do these practices actually work when implemented and what other organization and management issues impact upon supervision? These inquiries were initiated in conducting this synthesis of research in police management and administration.

Several law enforcement research efforts have examined the role of the first line supervisor and the mid-level in manager police agencies (see, for example, Skolnick, 1966; Reiss, 1971; Rubinstein, 1973; Tifft, 1975; Brief, Aldag, and Wallden, 1976; Moran, 1978; Jermier and Berkes, 1979). These studies by and large indicate that the traditional supervisory role in policing produces only a minimal degree of control and coordination of discretionary behavior. Skolnick (1966), Reiss (1971), Rubinstein (1973), and

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[52] See, for example, William B. Melnicoe and Jan Mennig, Elements of Police Supervision (Beverly Hills, Calif.: Glencoe Press, 1969) and Nathan F. Iannone, Supervision of Police Personnel, 2nd ed. (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1975).

Moran (1978) show that the occupational culture of police officers minimizes the actual control of behavior. Tifft (1975) suggests that variability in the task structure of policing makes it difficult for supervisors to control effectively police activities. And, Tifft (1975), Moran (1978), and Jermier and Berkes (1979) have shown that the traditional bureaucratic organizational structure, complete with its formal conferring of authority on the supervisor through the chain of command and expectation that supervisors can resort to formally documented rules and procedures to govern police officer behavior, is not satisfactory to coordinate police activities. This point is elaborated upon by Rubinstein (1973:447-450) showing that police officers do not comply with a supervisor's wishes because the sergeant "orders" them to perform a task, but because of personal relationships established with officers. Rubinstein (1973:450) explains that supervisors do not enjoy the authority conferred upon them by the formal organization by stating:

> The sergeant does not lead his men into their work, he supervises them. He needs their active cooperation or he will be a failure. Every sergeant understands this. If his men dislike him or feel that he is not competent, there is no way he can force them to do the work in a way that will satisfy the captain and the inspector.

Tifft (1975:72) has summarized reasons for this lack of influence through his analysis of power bases in police organizations by stating that the "supervisor position had few and weak social bases of power." Several factors, according to Tifft (1975:72) create this situation, among them:

1. The nature of the work supervised.

2. The impermanence of sergeant-patrolman relations.

3. The environmental "high crime" task demands.

4. The nature of manpower deployment decisions.

5. The lack of executive policy guidelines for handling non-crime incidents.

6. The pressures of subordinates.

7. The nature of his superior's task expectations.

This is not to say that police supervisors do not exert some influence over their subordinates. Police sergeants and mid-managers have the ability to mediate punishment and, to a certain degree, have the ability to affect day-to-day working conditions through work assignments. Because these two modes of influence are often manifested in a negative context--that is, by cracking down on selected rule violators or assigning officers to less than

desirable work tasks, the patterns of interaction between supervisors and subordinates often are narrowed to only specific forms of communication, and these generally do not involve giving advice in discretionary situations (Tifft, 1975). The supervisor is only able to check to see that by all appearances the police officer is performing his or her job effectively (i.e., by checking reports to make sure they are written correctly, by assuring that officers answer their radio calls in a timely manner). Consequently, police officers often tend to avoid contact with the supervisor.

The supervisor's role in performing even these tasks, however, is limited by management's seeming inability or intentional avoidance of conferring responsibility for disciplinary actions upon the supervisor. Many police agencies fail to delegate appropriate responsibility for supervisory disciplinary actions, creating inequities and inconsistencies in the administration of discipline and, consequently, lack of satisfaction with the police agency's disciplinary process (International Association of Chiefs of Police, 1976:36). McNamara (1967) and Macfarlane and Crosby (1976) have examined this phenomenon and observed that seniority often affects police officer perceptions of supervisors and discipline because senior officers become more accustomed to the realities of the supervisory role.

These dysfunctions in the administration of discipline are, quite logically, extensions of the overall problem of accurately defining the supervisor's position in policing. Consequently, supervisors are often not viewed as part of the management team (Rubinstein, 1973, International Association of Chiefs of Police, 1976).

How then can supervisors influence behavior, or how can they generate a positive evaluation by subordinates? Such outcomes do occur and where supervision is viewed as favorable, officers cite this factor as an attribute of police satisfaction (Slovak, 1978; Jermier and Berkes, 1979). Upon examining this question, Jermier and Berkes (1979) found that supervisors who exhibited a "participative" leadership style were rated more highly by subordinates. Similarly, Brief, Aldag, and Wallden (1976) found that there was a positive relationship between perceptions of supervisor initiating structure (that is, the extent to which a supervisor structures the subordinate's task) and employee commitment and satisfaction. Aldag and Brief (1978) examined this relationship and inquired as to whether "consideration structure" (i.e., supervisory behaviors leading to friendship, mutual trust, respect, and rapport) also contributes to positive perceptions and low amounts of stress in police officers. These researchers analyzed the relationship between stress and role ambiguity (the extent to which tasks are not well defined) using measures of initiating structure and consideration structure. They found (1978:366) that role ambiguity was negatively related with employee satisfaction, commitment, and satisfaction with supervisors, and that both initiating structure and consideration structure were negatively related to role ambiguity. They concluded, therefore, that role ambiguity is a significant correlate of satisfaction and commitment, but that supervisors who

display an initiating structure and a consideration structure in day-to-day activities can help minimize role ambiguity and thus improve satisfaction and likelihood of commitment. They conclude (1978:366-367) that "while a variety of other potential causal mechanisms deserve exploration, these results imply that . . . role ambiguity may intervene between supervisory style and subordinate responses (concerning satisfaction and commitment)."

Interestingly, these findings parallel those of researchers in the general social science arena. Lowin, Hrapchak, and Kavanagh (1969) and House, Filley, and Kerr (1971) have shown that perceived supervisory initiating structure is positively related to satisfaction. Lowin, Hrapchak, and Kavanagh (1969) have gone further and shown that perceived initiating structure is positively related to perceived consideration structure, suggesting possible multicollinearity between these two measures.

If it is assumed that such a supervisory style is positively related to employee perceptions, how can this supervisory style be related to performance? Wager (1965) has shown that supportive behavior (generally similar to initiating structure and consideration structure) is positively associated with supervisory fulfillment of role obligations (i.e., motivating the work force). This finding is similar to those of Lowin, Hrapchak, and Kavanagh (1969) and Misumi and Seki (1971) showing that supportive styles of supervision may be positively related to both satisfaction and performance.

Do these findings hold for all forms of organizations? Research in the general social science arena suggests that they may not. Rossel (1970) shows that two different levels of leadership may exist simultaneously in an organization. He defines these as instrumental and expressive leadership styles. Instrumental leadership is primarily concerned with task effectiveness; worker satisfaction is thought to be a byproduct of the organization of work. Expressive leadership orientations are classified as those concerned with the elimination of interpersonal friction that interferes with production. Rossel found that in organization work units with a high level of required labor commitment to the job, there was a pronounced instrumental orientation among high level managers and an expressive orientation among lower level supervisors. The pattern is reversed in organizations with a low required labor commitment. This suggests that the form of task structure and technological complexity affects supervisory style. This observation was similar to that of Wofford (1971), wherein he showed that organizations with simple, centralized, structured operations were more likely to exhibit effective supervisory styles that accentuated personal interaction among the work force (similar to Rossel's instrumental leadership). In organizations with a more complex environment and diverse structure, Wofford (1971) found that supervisory styles that highlighted group achievement were most effective (similar to Rossel's expressive leadership).

A study by Wager (1965:390) helps to put this difference in clear perspective. Wager, like other researchers (Lowin, Hrapchak, and Kavanagh,

1969; Misumi and Seki, 1971), found that supportive leadership styles were more effective than hierarchical influence styles, but that the "magnitude and pervasiveness of this effect of influence varies markedly by area of supervisory role obligation and employee category." Role obligation refers to autonomy, promotional opportunity, and layoff equity. Employee category refers to organizational sub-group, perceived work autonomy, and perceived professionalism. Wager (1965) found that employees perceiving their job to exhibit low autonomy and high professionalism reacted favorably to a supportive style of leadership. Employees perceiving their position to exhibit high autonomy and low professionalism were not as favorably influenced by supportive leadership styles.

Thus, it can be said that the work style and environment of an organization helps to dictate to what extent supportive supervisory behavior will be effective. Where:

- Task variability is low, autonomy is high, labor commitment is high, and perceived professionalism is low, supportive leadership (utilizing an initiating structure and/or a consideration structure) may not produce high performance.

- Task variability is high, autonomy is low, labor commitment is not high, and perceived professionalism is high, supportive leadership (utilizing an initiating structure or a consideration structure) may produce high performance.

In the context of policing, the latter of these two scenarios may be appropriate, provided of course that professionalism reaches a certain workable level among police officers. Contingent upon the attainment of such a level, then the findings of Brief, Aldag, and Wallden (1976), Aldag and Brief (1978), and Jermier and Berkes (1979) may hold in further research studies, and the actualization of such supervisory styles may produce improved performance. This would be an interesting subject for further research efforts.

## Organizational Maintenance Activities to Coordinate and Control the Human Enterprise

All organizations institutionalize systems to recruit, select, and train new employees. They also incorporate managment systems to evaluate their personnel and promote individuals to increasingly responsible positions as they become available or are created. These management processes of recruiting, selecting, training, evaluating, and promoting personnel are more

advanced in certain organizations, and often are carried out by specialized units. Regardless of the form of system exhibited, however, management relies on these systems to help control and coordinate the human enterprise within organizations. This section of this chapter analyzes these systems in policing with a view toward examining knowledge produced from empirical research. This section is subdivided into two sub-sections following two variables in the conceptual framework:

- Recruitment, advancement systems.

- Training systems.

Recruitment, Advancement Systems. There was a considerable amount of research discovered in the police literature addressing techniques and practices of recruiting, evaluating, and promoting police personnel. The majority (85%) of the studies reviewed examined recruitment practices.[53/] This seemed a disproportionate number which may have been spurred by the push through the late 1960's and 1970's to bring a greater number of better qualified recruits into policing. There were a small number of studies identified on performance evaluation and promotion systems, but this reduced sample makes it more difficult to produce a comprehensive knowledge base on these topics.

The subject of recruitment, performance evaluation, and promotion were not extensively represented in the non-police sample. This does not necessarily indicate that the general social science does not analyze these topics. It may be that the journals reviewed for this study did not cover these subjects in depth.

The considerable number of studies on police recruitment practices can be divided into two groups: those which provide descriptive information on police candidates or officers, and those which attempt to validate relationships between predictors of performance and actual on the job performance (Poland, 1978). Those studies researching descriptive criteria associated with police officers, generally speaking, were initiated first, although in recent years there have been increasing attempts to correlate such descriptive data to actual performance data. The sampled research studies can generally be classified as assessments of at least one dimension of three selection categories: intelligence testing, personality assessments, and personal biographical evaluations.

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[53/]This does not necessarily mean that a comparable proportion of all research on this variable addressed recruitment practices, only that the sample researched for this study displayed such a proportion.

One of the earliest studies on intelligence and police selection was the research study by Matarazzo (1964) which showed that a civil service test correlated with basic measures of intelligence (as analyzed using the Otis Intelligence Test). This study found that police recruits displayed intelligence higher than the average individual. Earlier studies, however, had demonstrated that despite this relationship a large percentage of candidates had failed to pass the initial civil service test (Dubois and Watson, 1950). This result, however, may have been due to a lack of uniformity in the design and application of civil service tests.

More recently, researchers have sought to develop predictors of future performance using intelligence scores, as well as other test data. In one such study, Marsh (1962) found, through a 10-year predictive study, that two components of civil service written scores (i.e., sentence completion, number series completion) were significant predictors of performance. Azen, Snibbe, and Montgomery (1973) conducted a 20-year predictive study of written civil service tests and other criteria and found that employment status (still employed or not), rank status (promoted or not), job type (patrol or other), and supervisory ratings were all positively related to selected written test output. A study by Mullineaux (1965) shows that scores on the Army General Classification Test correlated positively with recruit candidate scores at the end of training and, although Mullineaux reports no statistical data to confirm this relationship, between test scores and probationary performance ratings.

Findings from these studies are in concert with the results of a series of studies conducted for the Chicago Police Department, by Furcon, Froemel, Franczak, and Baehr (1971) and Furcon, Froemel, and Baehr (1973) where supervisory performance ratings, as well as other performance criteria, were used as criterion-dependent variables and it was concluded that there were significant positive relationships between test scores and all eight performance criteria. The eight performance criteria were:

- Supervisor's semiannual performance rating.

- Tenure.

- Departmental awards.

- Internal investigation division record.

- Disciplinary action.

- Arrest performance.

- Attendance.

- Paired comparison rating (independent ratings of performance by separate supervisors).

The intelligence measures used here included nonverbal reasoning, closure flexibility and speed, perceptual speed, and verbal comprehension. This is perhaps one of the most thorough research efforts of this type, in that it includes numerous performance criteria as identified from an occupational analysis of the tasks and activities performed by a representative sample of patrol officers. The initial study based on a cohort of 490 officers selected in 1966 was followed up by repeated analyses, continuing through 1969, of battery test scores and independent measures of performance with the ultimate finding that such scores were significant predictors of performance.

These studies were also significant contributors to the state of the art because they included personality and biographical data, as well as measures of intellectual ability. These researchers found that each of these measures were also significant predictors of performance. Their finding that behavioral (personality) measures and background factors were valid predictors is complemented by several other research studies addressing this element of an applicant's capability.

The issue of how personality characteristics can be used to predict performance has also been investigated by Marsh (1962), Colarelli and Siegel (1964), Hogan (1971), Lefkowitz (1971), Azen, Snibbe, and Montgomery (1973), Leiren (1973), Snibbe, Azen, Montgomery, and Marsh (1973), Landy (1976), Rhead, Abrams, Trosman, and Margolis (1976), and Saxe and Reiser (1976). These studies all substantiate positive predictive ability between measures of personality and performance. These researchers use several personality inventories in their research. Among those tests used were the Kuder Preference Record, the Minnesota Multiphasic Personality Inventory (MMPI), and the Guilford-Martin Temperment Inventory. The study by Leiren (1973) is quite revealing in that it uses the MMPI to profile the police personality. Leiren suggests that several of those candidates screened possessed a personality with a propensity for acting out, a willingness to take chances, a less than average score on a "paranoid scale." This finding gives rise to the notion of a distinct police personality.[54] Nevertheless, the predictors showed valid utility for selection and recruitment.

The study by Landy (1976) is an interesting departure from other studies. Landy investigates the use of the interview as a means of assessing future performance. Included in Landy's (1976:194) interview measures were several variables assessing personality factors (e.g., social sensitivity, emotional maturity, responsibility/maturity, sincerity of purpose). Landy (1976:195) demonstrated that three performance factors: technical competence, demeanor, and communication can be predicted from interview scores.

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[54] This topic is discussed in depth in Chapter VI: Informal Organization Structures.

Researchers have also assessed the relationship of several biographical factors to performance (Marsh, 1962; Levy, 1967,1972; McAllister, 1970; Furcon, Froemel, Franczak, and Baehr, 1971; Cohen and Chaiken, 1972; Azen, Snibbe, and Montgomery, 1973; Furcon, Froemel, and Baehr, 1973; Snibbe, Azen, and Montgomery, 1973; Landy, 1976). These researchers have shown that background characteristics of police applicants can also be used as predictors of future performance. One study in particular (Levy, 1967) was quite comprehensive analyzing biographical data from 14 police organizations and using 140 predictor variables to ascertain valid predictors of performance. Levy found that prior work experience, least amount of education, older age at time of appointment, and experience with some police science courses were characteristics of successful officers.

This study is similar in some ways to the study by Cohen and Chaiken (1972) which demonstrated that prior employment record, military disciplinary actions, repeated appearances, and education were significant positive predictors of later performance. Cohen and Chaiken's study (1972) is perhaps the most comprehensive analysis to date of background factors and performance. Thus, it is noteworthy to add that Cohen and Chaiken found that several biographical data, as well as intelligence measures, were not valid predictors. Among these were (Cohen and Chaiken, 1972:144-155): civil service examination score, IQ score, arrest for a petty crime, father's occupation, number of residences, aspects of early family responsibility, number of children, place of residence, and number of summonses.

The additional significance of this study is that it demonstrated that early job performance, as measured by recruit training score and probationary rating, are significant predictors of later performance. This work complements the work of Van Maanen (1975) showing that more senior officers receive lower supervisory ratings and suggests that accurate predictions should likely be made before socialization in the police force occurs.[55]

Cohen and Chaiken (1972) also demonstrate that the police background investigation is a positive predictor of future performance since this process assesses prior employment record, military disciplinary actions, repeated appearances in court, and education. This finding conflicted with the results of an earlier study by McAllister (1970), although this latter study essentially sought to determine if future performance could be predicted by discrimination across background investigation ratings (e.g., ratings of good, fair, poor). McAllister did not necessarily distinguish as to reasons for specific ratings in background investigations.

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[55] The subject of police officer socialization is examined in greater detail in Chapter IV: Internal Structural Differentiation.

In summary, it can be stated that the police literature on selection demonstrates that a combination of intellectual, personality, and biographical factors should perhaps be used to develop a total officer performance prediction capability. Further, this research suggests that the interview in selection processes and initial supervisory ratings are also likely predictors of future performance. These elements of the selection process are diagrammed in Figure 18 below.

This graphic also presents a diagram of influence effected by civil service systems on police selection techniques. As noted by Greisinger, Slovak, and Molkup (1979:xix, 116) civil service systems may significantly affect the nature of the police selection process. Those civil service systems which are regulatory by design (systems which monitor, review, and regulate decisions or actions taken by others) are associated with less extensive sets of police selection standards. Civil service systems which exhibit other roles (i.e., advisory, administrative, adjudicative, and policy formulating) do not have such an impact. Therefore, the nature of civil service systems may limit the diversity of selection techniques utilized in policing.

Figure 18

RELATIONSHIP OF POLICE SELECTION TECHNIQUES TO PERFORMANCE

Civil Service Systems (Regulatory Role)

Selection Data

Personality

Biographical

Intellectual

Departmental Practices

Background Investigation

Selection Interview

Supervisory Review
(Training, Probation)

Performance as
measured by:

Supervisor Rating
Tenure
Disciplinary Problems
Promotion
Arrest Performance
Attendance
Internal Investigation
Record

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This study discovered only two studies examining police performance evaluation systems. One such study was the previously mentioned treatment by Cohen and Chaiken (1972) of recruit and probationary evaluations of performance, wherein it was shown that such evaluations can be positive predictors of performance. One other study (Balch, 1974) assessed the use of paired-choice ratings by supervisors to evaluate performance. Balch tested such systems in three dissimilar police agencies with the intent of determining to what extent supervisor ratings and peer ratings (incorporated in the paired rating system) were similar. He found (1974:49) that peer and supervisor ratings were "nearly identical." Balch, however, did not correlate these measures to broader, long-term measures of performance (e.g., tenure, promotions, disciplinary actions), thus leaving the reader to wonder if such a system would have predictive ability for future performance.

The small number of studies examining performance evaluation in policing and the limited generalizability of the two studies reviewed makes it difficult to develop a generalized knowledge base on this subject. Additional reviews of research, or the initiation of new research, is needed to develop such a knowledge base.

It may be, as suggested by Levine and Parker (1980), that police performance measurement has generally relied on the "hiring process as a means of selecting desirable candidates for police jobs." Little effort may be devoted to subsequent evaluations of performance due to this reliance on selection processes. Or, it may be that lack of credibility in present performance evaluation systems minimizes their importance in policing. As observed by Allan and Rosenberg (1980), municipal level performance evaluations are often based on general characteristics and traits, such as judgement, quality, and accuracy of work, administrative ability, and leadership, and not on behavioral dimensions. Psychologists have devised systems which rely on behavioral measures of performance (see, for example, Landy and Farr, 1975) but, at least as can be ascertained from this present project, such systems have not been empirically evaluated.

Similarly, little empirical work on police promotion systems was discovered in this research study. As was the case for the topic of performance evaluation, this does not necessarily mean that empirical work on this topic has not been completed, only that it was not well represented in sampled studies.

In one study identified, Maniha (1975) investigated the relationships of bureaucratic development in policing to promotion. He hypothesized that promotion based on seniority as opposed to merit would be more prevalent as police organizations become more bureaucratic. His hypothesis, however, was not confirmed.

In an additional study by Roberg and Laramy (1980) the relevance of promotional tests, departmental performance evaluation, number of college

hours earned, and seniority were correlated with promotion patterns in one agency. Noting the void in the literature on this topic, these researchers re-analyzed original data to determine if weighting the independent variables, as noted above, would have any influence on promotion patterns. These authors found that seniority is not a predictor of promotion potential, but that college hours taken are positively related to promotion potential.

Again, the small number of studies selected and reviewed makes it impossible to derive a knowledge base on promotion practices. This subject should be researched further to develop such a knowledge base.

Training Systems. The second topic investigated in this sub-topical cluster area is police training systems. This variable encompasses training for initial recruits, in-service training for special programs or skill development, and supervisory and management training. The literature reviewed for this study identified research studies on each of these topics. However, the considerable majority of selected research was in the police science discipline. Little research efforts on training was identified in sampled studies in the non-police arena. For this reason, this review will be based primarily on work undertaken in the police discipline.

As a general descriptive finding on police training, research by Ostrom and Smith (1976) suggests that size of police agency may influence amounts of police recruit training, but that this relationship is likely explained by the fact that police officers in the large agency observed (St. Louis) operated their own training program, while officers in smaller agencies attended a two week recruit training program operated by the State Highway Patrol (Ostrom and Smith, 1976:195). This study represents the only available, sampled study which provides information on organization and management as related to training programs. No research studies were analyzed addressing the impacts of environmental factors, structural factors, or management style characteristics as related to training.

The topic of police recruit training has been researched by several investigators in the police science discipline (McNamara, 1967; Niederhoffer, 1967; Reese, 1973; Smith and Ostrom, 1974; Rafky, Lawley, and Ingram, 1976). All of these studies, except the work of Smith and Ostrom, deal with a police officer's role perception as he or she enters the police agency and subsequent changes as affected by experiences in recruit training. Two of these studies, in particular, have examined the subject of police cynicism as affected by training.

Niederhoffer's (1967) classic study of police cynicism shows that recruits become cynical once they come into the police academy, but that this cynicism is often temporary and is a different form of cynicism than the permanent cynicism which he describes is associated with older police officers. This cynicism is more associated with disillusionment as the rookie cop is told that the training he or she receives in the academy is not pertinent to the real job of being a policeman (Niederhoffer, 1967:47).

Rafky, Lawley, and Ingram (1976) also assessed the relationship between training and police cynicism. Their research inquired as to whether cynicism originated from experiences in the police academy or from other experiences. These researchers administered a cynicism questionnaire to officers at several different intervals in their recruit training program and found that recruits are not cynical and, in fact, have professional leanings.

This finding complements the work of Reese (1973) and Poole and Regoli (1979). Reese (1973) assessed police racial prejudice as affected by recruit training. He found that little or no change in racial prejudice occurred as a result of recruit training. Such prejudice begins to develop, however, as recruits undergo their field training program. Following the fifth month of field training, there is a considerable worsening of attitudes toward minorities. Poole and Regoli (1979) similarly found a precipitous drop in perceptions of professionalism in police recruits after completing training and entering the police occupational environment.

These studies suggest that recruit training programs may be out of touch with the real world of policing and that police attitude sentiments regarding their job are not formed in the academy, but through experiences on the street or in the precinct. This observation is consistent with findings of the research study by McNamara (1967) showing that there is a disparity between what the academy teaches and what the majority of working police officers judge to be more practical and customary field practices.

The study by McNamara (1967) was one of the earliest examinations of police training. He observed (1967:207) that recruit training in one city (New York) did not satisfactorily prepare recruits to cope with uncertainties in police work concerning the legality of police action and in use of effective interpersonal skills. McNamara (1967:207) interpreted recruit training more effectively to prepare a recruit for uncertainties regarding organizational difficulties (e.g., supervision, rules, and regulations), but not in coping with situations to be confronted in field experiences.

A recent research study by Smith and Ostrom (1974) finds similar insufficiencies stemming from police recruit training. Smith and Ostrom (1974:54-56) observed that total weeks of training has little or no bearing on attitudes toward police use of force, probable cause limits on searches and interrogation, attitudes toward Supreme Court decisions, attitudes toward rights to protest and dissent, and only a negligible bearing on feelings of preparedness to handle family disturbances, civil disorders, traffic accidents, narcotics cases, court appearances, and problem juveniles. Moreover, Smith and Ostrom (1974:56) found that most police recruits after undergoing training felt that the military model of policing is a "good model for a police department." This finding supports the observation of McNamara that recruit training is more effective in developing in recruits an ability to cope with the demands placed upon them by the organization, or as suggested by Niederhoffer (1967:45), the capacity to inculcate discipline in the model of the military organization.

These studies then provide a portrayal of recruit training emphasizing adherence to rules, reliance on the formal chain of command, and compliance with supervisory orders. Such studies do not indicate that recruit training satisfactorily enables police to develop the capability of dealing with discretionary enforcement situations, or in developing a sense of professionalism accentuating self reliance and autonomy in action.

How does in-service training assist the police officer in coping with the demands of the job? Sampled and reviewed literature presents conflicting findings concerning this question. Two studies (Blankenship and Cramer, 1976; Levinson and Distefano, 1978) assess the relationship between training in mental health problems and police attitudes. In each case, it was found that the training had little impact. Blankenship and Miles (1976) showed that in-service training had little or no effect on discretion while Levinson and Distefano (1978) indicated that this training only promoted greater police cynicism in dealing with cases where mental health problems were evident. Similarly, a study by West (1975) shows that in-service training oriented toward encouraging police to adopt closer ties to the community only resulted in increased fears of the community.

A contrary effect of in-service training has been observed by Pfister (1975). In a study of the effects of a special communications workshop on officer ability to handle interpersonal relationships, solve problems, and improve interactions with citizens employing a quasi-experimental design, Pfister (1975) found not only positive changes in officer personality, but in citizen attitudes toward the police. Pfister (1975) concluded that officers in the experimental group rated themselves more favorably following training on three personality dimensions: "virtuous," "critical of others," and "understands self," as measured by the Edwards Personality Inventory. He also found that citizens perceived officers to be more "sincere" and "helping" after receiving the training.

These studies provide only sufficient information to develop preliminary conclusions concerning police in-service training. The key question here seems to be whether a short duration training course, although perhaps administered intensively, is able to counteract the experience and occupational culture of policing, both of which significantly affect the police officer's attitudes and application of discretion. Certainly additional research would be helpful in further assessing this issue.

Further, there seems to be a void in the police literature concerning organizational and management conditions affecting predispositions to initiate in-service training, or to actually deliver the training. Several questions remain unanswered. Can police agencies effectively conduct their own in-service training, or is it more appropriate for them to utilize outside consultants to conduct such training? Should in-service training be delivered to a homogeneous group of police officers with similar experience, or by

functional work unit (e.g., patrol, investigations), and how often should in-service training be conducted? These and other questions remain unanswered. Additional research would certainly help fill the apparent voids regarding these topics.

The final subject appearing in the literature on police training concerns supervisory/management training. Despite the importance attached to this form of training due to the need to continually develop managerial abilities, there appears to be little empirical research in the police discipline on this topic. Available research presents a picture of differential priorities over supervisory training needs (Goodgame, 1978) and a portrayal of missed opportunities received by police agencies from specialized management training programs delivered externally to the police agency (Buren, 1973).

Lefkowitz (1972) presents an analysis of a supervisory training program by utilizing a quasi-experimental, pre-post evaluation design. Lefkowitz (1972:102-103) found a positive relationship between changes in supervisory initiating structure and the sergeant's evaluation of the training program. It was concluded, however (1972:104), that although these positive evaluations of the program were achieved, there was little evidence of changes in attitude among trainees. Lefkowitz (1972:105) suggests that personal characteristics of the trainees may have affected this outcome and recommends that further work controlling pre-training expectations be conducted to further address this issue.

The general management literature would seem to support the notion of supervisory training having an ultimate benefit for the organization. As shown by Miller and Wager (1971), length of management training programs can have the effect of increased professionalization and improved group cohesion. Furthermore, specific training in organizational development techniques has been shown to have a positive effect on interpersonal and intergroup relations (Golembiewski and Carrigan, 1970a). This latter research follows the findings and implications of the landmark study by Likert (1961) showing that managers who rely on the principle of supportive relationships and the technique of integrating the work group are most effective.

Certainly the suggestions, as posed earlier in this report, that effective supervision can be gained from use of an "initiating" and a "consideration" structure should give rise to the need for more supervisory/management training in policing, emphasizing these concepts. Further research could investigate the effects of such training programs.

In summary, the sampled literature on training has not shown many conclusive relationships between organizational/administrative characteristics and training. Nor has the literature demonstrated evidence of effectiveness of police training programs. The literature has shown that recruit training:

- Does not foster cynicism among police recruits.

- Does not prepare police officers for the uncertainties to be experienced in police work, especially those arising from discretionary situations.

- Does appear to equip the police officer to cope with the uncertainties generated from the formal, militaristic police organizational structure.

Beyond these propositions, however, little knowledge can be deduced, particularly regarding the applications of and results of in-service training and supervisory/management training in police agencies.

## Summary and Conclusions

This chapter has analyzed research addressing numerous issues pertinent to managerial control and coordination of the human enterprise and work tasks in organizations. Four topical areas were constructed to present findings concerning unique themes appearing in the management literature. These four topical areas were:

- Traditional, Bureaucratic Modes of Coordination and Control.

- Non-Bureaucratic Modes of Coordination and Control.

- Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization.

- Organizational Maintenance Activities to Coordinate and Control the Human Enterprise.

A review of the content of sampled research studies in police science and in general social science yields the finding that there is a distinct difference in the subject matter in these two samples. Research in policing, as analyzed from this sample, tends to focus on employee related concerns such as discretion, supervision, recruitment, and training, while devoting much less attention to organization structural issues or ongoing administrative processes, such as decision-making. The non-police sample contributes substantially more knowledge on these structural and administrative subjects.

The studies on police science and administration in most cases (95% of studies reviewed) utilized either an exploratory or a case study design. A majority of the non-police sample (76% of the studies reviewed) also chose these forms of research design. The almost exclusive reliance on these less

sophisticated research designs in policing demonstrates that research in management practices of coordination and control is either descriptive in that it seeks to describe a phenomenon in the organization, or is performed using previously existing data with a view toward generating inferences concerning some particular dimension of management or organization. There are very few examples in the sampled literature of research of intentional, experimental changes being instituted in management and organization practices in police agencies. This is due, in part, to the difficulty of measuring such changes, but also to the relative recency of concentrated research in police management.

The police studies sampled for this cluster contained a greater proportion of multivariate analyses of collected data than was the case for previous clusters. This is due primarily to the nature of the variables included in this cluster. Many of these variables facilitated analyses of biographical and attitudinal data; these were often subjected to multivariate analysis.

The specific findings for each sub-cluster topical area are summarized in order of their appearance in the chapter.

## Traditional, Bureaucratic Modes of Coordination and Control

This study examined a considerable number of studies investigating the effects of four elements incorporated in traditional, bureaucratic management systems. The majority of studies utilized in developing a knowledge base on these elements were found in non-police sources, although for two variables in this sub-cluster (Formalization/Written Rules and Hierarchical Levels) the police sample included a sufficient number of studies to permit the development of inferences concerning the state of the art. Key findings for each variable are summarized below.

The reviewed research studies in the police and the non-police disciplines contained analyses of relationships between several organizational and management characteristics and the formalization of written rules. Findings for these studies infer that formalized/written rules have little bearing on employee performance, primarily defined as degrees of compliance with formalized written rules.

Research in both the police and the non-police disciplines depicts several dysfunctions associated with hierarchical organization structures. In the police sample, for example, arbitrary discipline and advancement based on deference to rank are shown to be dysfunctions of hierarchical organizational structures. A number of studies in the police arena, however, suggest that police officers may actually prefer hierarchical structures to other forms of organization. A number of studies in other disciplines suggest that this preference may be prevalent in non-professional organizations and that

professionals are opposed to hierarchical authority; professionals are judged to rely on professional authority to coordinate activities.

There were virtually no examinations of variations in span of control;manager ratio in the police literature. The non-police literature contained studies suggesting that division of labor in organizations is associated with low spans of control. Concentration of decision-making authority is associated with larger spans of control.

The police sample also contained only a small number of studies on administrative staff and communication. Those studies that were reviewed provide the inference that decentralization of decision-making authority leads to increased need for administrative support and generates a need for role changes in managerial and administrative staff: such staff need to provide a greater degree of support to operational units. These findings parallel those in the general management sample. Staff communication is found to be positively related to employee satisfaction and commitment.

The reviewed research on this sub-cluster topical area provides several suggestions for further research in police organizations. Among the topics discussed are the following:

- Additional research is needed exploring the relationship between formalized written rules and performance. This research should control the effects of peer influence and social cohesion on performance and should include analyses of the effects of management incentives on performance. Further, the research optimally should consider various measures of performance and should not only be limited to analyses of employee compliance to rules and procedures.

- The effect of perceived professionalism among police officers on perceptions of hierarchical control should be researched to analyze the effect of professionalism on hierarchical structure.

- Additional research on the effects of variations in the span of control; manager ratio in policing should be initiated to consider the relationship of such variations to performance. Furthermore, the effect of division of labor on span of control; manager ratio should be ascertained.

## Non-Bureaucratic Modes of Coordination and Control

The number of sampled studies focusing on non-bureaucratic modes of coordination and control was considerably smaller than the number examining traditional, bureaucratic coordination and control systems. The number of

studies in the police sample was particularly small, although a considerable number of studies were located examining the impact of normative incentives on police officer candidates.

Participative management systems were shown to be associated with employee satisfaction and commitment in both the police and the non-police samples. Such management systems, however, were not found to be positively related to individual performance or organizational effectiveness. Perceived environmental uncertainty was shown to be positively related to the use of committees or participative management structures. Research in the non-police disciplines suggests that degree of employee professionalism may be a factor in the ultimate receptivity of participatory management schemes. Individuals in positions wherein professionalism is advanced may be more prone to be positively affected by participative management.

The sampled research studies on incentive systems examined primarily material and normative incentives, especially in policing. The police studies suggest that civil service systems may affect police management propensity to apply material incentives and presents mixed findings pertaining to the relevance of material incentives in the selection of a police career by black police candidates. The sampled literature in general social science suggests that material incentives may be conducive to improved satisfaction and likelihood of adopting innovations, but primarily for individuals committed to the organization.

The relevance of social incentives as a management tool appears to be effective when individuals have investments (e.g., seniority, hierarchical rank) in the organization. No police studies addressing social incentives were located and reviewed.

Normative incentives were shown to be positively related to satisfaction, commitment, and performance in general management environments. A decrease in available revenues to the organization was linked to decreasing realization of normative incentives among employees.

The use of incentives as a tool for management should be researched further in police organizations. The use of material incentives may be difficult to research given police management's reliance on external funding. Social and material incentives, however, are within the control of police managers, although research studies provide little examination of their utility in motivating police employees.

## Management/Supervisory Systems of Coordinating the Human Enterprise Within the Organization

This subject area, addressing supervision and management systems of coordinating the work effort, contained three topics that have been subjected to considerable research in policing. The topic of discretion, in particular,

has been researched by numerous social scientists endeavoring to explain the actual police role in day-to-day situations. Similarly, supervision systems and practices have been examined in numerous studies in the police sample. The non-police sample, on the other hand, contains a large number of studies focusing on concentration of authority as an element of decision-making. The police sample contains only a small number of studies on this topic.

The sampled literature in police science and administration provides several descriptions of organizational and environmental conditions influencing the application of discretion. The research indicates that peer influence may have the predominant influence, although situational factors encountered in day-to-day law enforcement, variations in environmental conditions (e.g., community socioeconomic status, community norms and values), management expectations, and police officer personal characteristics all have a bearing on the application of discretion.

Management practices and organizational maintenance systems do not seem to be influential in structuring police discretion. Research has shown that neither formalized written policies, training, nor supervision are effective in controlling officer discretion.

There was only a limited analyses of concentration of authority in the police sample; a large number of studies in the non-police sample facilitated the development of a knowledge base on this topic. The police studies on this subject research the effects of team policing programs. Concentration of authority is only one of several variables considered in assessments of these programs. Team policing programs were shown to be positively associated with citizen evaluations of the police, police officer satisfaction, social cohesion among police officers and increased administrative staff support. These findings were similar to conclusions developed in selected studies in the non-police disciplines. Such studies also suggested that hierarchical structure and technological complexity are positively related to concentration of authority. Perceived environmental uncertainty was shown to promote decentralization of authority.

Research of police supervisory practices suggests that first line supervisors have little control over police officer behavior due to the police occupational culture, variability in the police task structure, and a limited power base in the supervisory position. Certain research studies also suggest that adoption of an initiating structure and/or a consideration structure by police supervisors enhances employee satisfaction and commitment. This finding is similar to conclusions in several studies in the social science arena.

The reviewed research studies included in this sub-cluster topical area identified certain research needs in policing. These research needs are:

- The need for additional research in policing concerning concentration of authority. The ultimate impact of

decentralization on the organization and on the community cannot be fully assessed based on the research reviewed in this study. Such additional research should include multivariate analysis of the effects of numerous elements of organization structure, as well as decision-making authority.

- The finding that initiating and consideration structures on the part of police supervisors generate satisfaction and commitment should be furthered with research focusing on the effects of such supervisory styles on performance.

## Organizational Maintenance Activities to Coordinate and Control the Human Enterprise

The sampled literature on this sub-cluster was primarily drawn from the police arena. There were numerous studies on recruitment and advancement systems, although most of these studies addressed recruitment and selection systems. There was only a limited amount of research identified addressing the subjects of performance evaluation and promotion.

The large sample of studies focusing on recruitment and selection demonstrates that a variety of selection characteristics, including recruit intelligence, personality, and selected biographical factors have been positively correlated with performance criteria including supervisory ratings. One set of studies, in particular, showed that all three sets of factors may be related to selected performance criteria.

Research on training systems was categorized as either examining recruit training, in-service training, or supervisory training. The sampled literature suggests that police recruit training systems do not adequately prepare police officers for uncertainties to be faced in day-to-day situations. Only a small number of studies were identified addressing the effects of in-service training, albeit the selected studies showed that such training systems may not be totally effective. Similarly, the limited number of studies on supervisory/management systems suggests that such training also may be ineffective.

VI.  INFORMAL ORGANIZATION STRUCTURES

## Introduction

This chapter presents material which moves from an emphasis on organizational structure and managerial processes to a focus on the individual and the work group in the police organization.  All organizations are comprised of individuals with diverse sets of values and norms, as well as divergent skills and abilities.  Organizations are social systems in which these individuals are grouped together to achieve some common purpose.  The "open systems" perspective of management as proposed by psychologists stresses that this grouping of individuals is a contrived process wherein a social structure is developed to prescribe patterns of events and happenings among individuals.  As such, organizations are "made by men and are imperfect systems" (Katz and Kahn, 1966:33).  The essential lifeblood of organizations, according to social psychologists who have studied management, is not the formal structure and prescribed interrelations between management and individuals, but the social functioning of the individual.

The "open systems" view of management and organization relies on this model of analyzing organizations and consequently describes interdependence among unique subsystems within organizations.  To be successful, management must integrate these various subsystems.  Perhaps the first task for management is to recognize the various subsystems which exist in all organizations.  Katz and Kahn (1966:39-47) have defined five such subsystems:  (1) production or technical, (2) supportive, (3) maintenance, including reward and sanctioning systems, (4) adaptive, and (5) managerial.  Each of these subsystems extends beyond the narrow lines of the formal organization structure and relies on interpersonal and intergroup interaction to function effectively.  Thus, it may be said that integration of these subsystems is effected by informal organization structures--or those processes occurring outside the formal chain of command.  A critical managerial responsibility is managing such interaction.

This chapter examines the extent to which knowledge is available describing these interactions in law enforcement and seeks to determine what managerial practices are most effective in addressing individual and group integration.  The general social science literature contains an extensive body of research studies addressing the role and interaction of the informal organization.  This research was initially spurred by the landmark Hawthorne studies performed by Mayo and his colleagues (Roethlisberger and Dickson, 1938) and continued with several other studies on the individual and the work group (e.g., Maslow, 1954; McGregor, 1960; Likert, 1961, 1967).  These studies and others will be examined as they pertain to law enforcement.

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A fundamental task essential to managing individual and group interaction is recognizing the values and norms within the organization. This is particularly important in policing because of the autonomy inherent in the police role and the pattern of organizing individuals by homogeneous work group (e.g., shift, watch) where the group itself is an entity in the organization. Police officers, like all employees within any organizational setting, bring certain values and norms to the job and have these values shaped through their experience in the organization. These value systems have an effect on the performance of individual police officers and groups of officers. As stated by Chwast (1965:152):

> The social and personal values of the law enforcement officer strongly conditions the quality of service he delivers to different segments of the populace at large.

What are these values and do they comprise a unique police working personality? Moreover, how do these values affect performance and to what extent does management consider these value systems in efforts to integrate the individual and the organization. These and similar questions are examined in this chapter.

The specific role of the work group is also addressed in this chapter with a keen interest in analyzing empirical research on the role and impact of police unions as a manifestation of organized group behavior. The experiences of managers in the private sector concerning the topic of social cohesion are also considered.

This chapter also inquires as to what knowledge is available on police officer satisfaction. Based on existing research studies, what can be said about satisfaction: is it important for productivity, how is it measured, what variations in individual experience and background affect satisfaction, and what managerial practices appear to be correlated with satisfaction, or its corollary alienation? These questions and others are raised in the course of this chapter considering both empirical treatments of satisfaction in law enforcement literature and in general social science disciplines.

## Descriptive Findings

A review of the police management literature for the fifth conceptual cluster entitled, "Informal Organizational Structures," revealed 88 empirical studies. This sample was augmented by an additional 51 studies in the non-police area. These 139 empirical studies were carefully reviewed and coded to provide a knowledge base pertaining to the informal structure of the

organization. Although the general management studies reviewed do not represent the total number of studies on this topic, they do provide an indication of the state of the art and are used for comparative purposes.

This portion of the chapter presents the descriptive findings based on the review and analysis of each selected study. This section includes information on the number of studies reviewed by specific variable, the type of research design utilized, the level of analysis, and a summary of descriptive findings by each variable.

## Number of Studies by Specific Variables

The conceptual framework for the cluster on Informal Organizational Structure consists of three variables: (1) Employee Adaptation, (2) Group Cohesion, and, (3) Satisfaction/Alienation. Definitions for each of these variables can be found in Chapter 1: Detailed Study Methodology. Two of these variables, employee adaptation and group cohesion, were found to be too broad in scope and, therefore, were further broken down into key sub-variables. These sub-variables provide a more accurate description of the content area of similar studies.

Table 20 contains the number of studies reviewed for each variable in this conceptual cluster. Several studies reviewed examined more than one variable, thus the totals in the table will equal more than the total number of studies reviewed on this topic.

As table 20 indicates, the majority of police studies examined employee adaptation and, more specifically, issues surrounding the individual's personality, values, attitudes, and role perception, as well as individual police officer satisfaction. The non-police literature also tended to focus on the degree to which employees were satisfied with their jobs, as well as group interaction. The sampled non-police literature contained considerably more studies addressing managerial issues concerning work groups than did the sampled police literature. This variance reflects the influence of social psychologists in the management literature.

Table 20

NUMBER OF STUDIES BY SPECIFIC VARIABLE

(Conceptual Cluster V)

| Variable Number | Name | Police | Non-Police |
|---|---|---|---|
| 34 | Employee Adaptation (Total) | 57 | 11 |
| | • Cynicism | (14) | (0) |
| | • Individual Personality, Values, Attitudes, and Role Perception | (41) | (1) |
| | • Commitment | (2) | (10) |
| 35 | Group Cohesion (Total) | 13 | 20 |
| | • Employee Organization: Role and Impact | (5) | (1) |
| | • Group Interaction | (8) | (19) |
| 36 | Satisfaction/Alienation | 24 | 29 |

## Research Designs

The second step in the descriptive phase of the analysis was to determine the type of research design employed. To complete this analysis, studies were classified as exploratory, case study, quasi-experimental, or experimental. Additionally, each study in this cluster was reviewed to determine if the variables were treated as independent or dependent in the research design.

Type of Research Design. Table 21 displays the analysis of research designs. As is depicted by this table, the vast majority of the sampled studies utilized either an exploratory or case study design. This finding is consistent with reviews of other conceptual clusters reviewed for both police and non-police studies in previous chapters.

Table 21

TYPES OF DESIGNS FOR SAMPLED STUDIES

| Types of Designs | Police N | Police % | Non-Police N | Non-Police % |
|---|---|---|---|---|
| • Exploratory | 45 | 51 | 33 | 64 |
| • Case Study | 41 | 47 | 14 | 27 |
| • Quasi-Experimental | 2 | 2 | 0 | 0 |
| • Experimental | 0 | 0 | 4 | 8 |
| | 88 | 100% | 51 | 100% |

The subject matter included in this cluster is primarily attitudinal and is usually considered as outcome measures in research designs. As such, it is surprising to see that more experimental studies have not been conducted in which researchers attempted to experimentally manipulate some management and/or organizational factor(s) and then assess their impact on job satisfaction or organizational commitment. It would be interesting, for example, to see what effect participatory management and decentralization of decision making has on the employee's level of organizational commitment and job satisfaction. In order to determine effects of such actions, researchers could use a randomized block design in which work units were first matched on selected variables and then randomly assigned to either an experimental or control group. After the management change was effected and a specified amount of time passed, a questionnaire could be administered to gather information about the effects of such changes on the informal organizational structure. If this type of experimental design were utilized, inferences could be drawn and the results would be generalizable.

The overwhelming pattern of types of design for research on the informal organization has been exploratory or case study. This may be due to (1) general disagreement among scholars and researchers about aspects of the informal organization (e.g., the police personality) and/or (2) the general lack of development of the state of the art in policing. Social scientists and management theorists have only recently (within the last 10-15 years) examined the inner workings of police organizations. Their first endeavor has been to describe these inner workings, hence the reliance on exploratory and case study designs. Perhaps the emphasis on describing the informal workings of the organization have precluded more sophisticated research on the effects of management practices and organizational structures on the informal organization.

Treatment of Variables in Research Designs. As a secondary analysis, the sampled studies were reviewed to determine if the variables were treated as independent or dependent. Table 22 presents the results of this analysis. As previously indicated, many of the studies reviewed more than one variable, thus the total number may equal more than the total number of studies reviewed.

Table 22

TREATMENT OF VARIABLES IN RESEARCH DESIGNS

| Vari-able Number | Name | Police | | Non-Police | |
|---|---|---|---|---|---|
| | | Independent | Dependent | Independent | Dependent |
| 34 | Employee Adaptation | 9 | 49 | 1 | 10 |
| 35 | Group Cohesion | 6 | 7 | 5 | 16 |
| 36 | Satisfaction/Alienation | 3 | 23 | 4 | 25 |

As shown in Table 22, most studies treated the majority of the variables as dependent or outcome measures. This is the first conceptual cluster in which researchers have assessed the possible relationship between other management and organization variables and the degree of employee adaptation and satisfaction/alienation. In the police sample, group cohesion was conceptualized almost equally as an independent and a dependent variable, while in non-police literature it was used primarily as an outcome measure. Because most studies treated these variables primarily as outcome measures, this chapter will address and begin to provide answers to key questions about the effect environmental, organizational, and managerial factors have on the informal organizational structure.

Methods of Analysis

Specifying the type of analysis researchers used was the third step in the descriptive analysis. The 139 studies in this conceptual cluster were carefully reviewed and categorized as utilizing either qualitative, univariate, bivariate, or multivariate analytical methods.

The results of this analysis are presented in Table 23. As has been the case in previous conceptual clusters, virtually all of the non-police studies sampled utilized either bivariate (45%) or multivariate (51%) analytical techniques. As mentioned in earlier chapters, this was due in part to the fact that the Administrative Science Quarterly was the target journal used to gather information on general management and social science topics.

This journal uses a standardized format for reporting research; articles published tend to use more sophisticated analytical techniques.

Table 23

METHODS OF ANALYSIS FOR SELECTED STUDIES

| Methods of Analysis | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Qualitative | 14 | 16 | 2 | 4 |
| ● Univariate | 12 | 14 | 0 | 0 |
| ● Bivariate | 37 | 42 | 23 | 45 |
| ● Multivariate | 25 | 28 | 26 | 51 |
| | 88 | 100% | 51 | 100% |

Although the variables measuring attributes of the informal organization were primarily treated as outcome measures and were analyzed using multivariate analyses, 16 percent of the police studies reviewed were classified as qualitative and 14 percent of the studies provided only frequency distributions of collected data. Of the 13 police studies which examined group cohesion, 10 utilized either qualitative or univariate analysis. Most of these studies provided descriptive information about employee organizations, rather than addressing the impact these employee organizations have on the police department, or the effects of management practices on the employee organization. The police studies which applied either bivariate or multivariate methods were evenly distributed among the variables employee adaptation and satisfaction. As a result, researchers attempted to infer relationships between these two variables and other environmental and organizational variables.

Presentation of Descriptive Findings Produced by Sampled Research Studies

The final step in this phase of the analysis was to examine the patterns of relationships among the three variables within this conceptual cluster, and between these variables and those in other clusters. This descriptive synthesis is presented in Exhibit E entitled, Synthesis of Descriptive Findings: Informal Organizational Structures, which follows. The findings have been ordered by variable and sub-variable to facilitate a comparison between the police and non-police literature. It should be noted that the results presented are descriptive in nature and, therefore, do not necessarily produce a knowledge base. The subsequent section of this chapter, entitled Inferential Findings, presents a discussion of knowledge base strengths and weaknesses.

EXHIBIT E

SYNTHESIS OF DESCRIPTIVE FINDINGS:
INFORMAL ORGANIZATIONAL STRUCTURES

Police Studies

34. Employee Adaptation

a. Cynicism

- Niederhoffer (1967) conducted a study of police cynicism and found that professionalism and cynicism were inversely related: more educated officers are more cynical, and cynicism peaked in the 9th-10th years of service, dropped off after 11-14 years of service, and leveled off for the last 15-19 years. Several other individuals have replicated this classic study. Another study confirmed that professionalism was inversely related to cynicism. However, two other studies found no relationship between educational attainment and cynicism. One investigator found that ethnicity was not related to cynicism, but that officers with the highest levels of cynicism also were the best performers. There were conflicting results concerning the relationhip between seniority and cynicism. One

Non-Police

34. Employee Adaptation

a. Cynicism

- The literature reviewed is silent on this variable.

| Police | Non-Police |
| --- | --- |

author confirmed Niederhoffer's results,
while another researcher found that
cynicism continued to increase with
length of service.

- Three studies were located which examined
  the validity and reliability of
  Niederhoffer's cynicism scale.
  Niederhoffer suggested that the scale was
  unidimensional.  However, these other
  researchers found the scale to be
  multidimensional:  two authors found 5
  dimensions of cynicism, and the third
  researcher found 3 dimensions of
  cynicism.

- Other studies which examined cynicism,
  but did not specifically use
  Niederhoffer's scale, found that younger
  officers are more cynical and close-
  minded than older officers.

- Reviewed research indicates the existence
  of a positive relationship between
  cynicism and police officer alienation.

- Variability of task appears to be related
  to increased levels of cynicism, in terms
  of the officer's attitudes toward the
  public.

| Police | Non-Police |
|---|---|

- Training does not appear to effect cynicism, although racial stratification was related to the officer's level of cynicism during training.

b. <u>Individual Personality, Values, Attitudes, and Role Perceptions</u>

- Several authors attempted to determine if police officers had a distinctive personality from citizens, or if the officer's values changed as a result of occupational socialization. There is a discrepancy in the findings. Several investigators found a significant difference in the value systems of police and civilians, while others found that occupational socialization will result in values and behavior which render the recruit indistinguishable from experienced officers.

- Indication that as experience in police work increases, self-disclosure (willingness to divulge information about actual work activities) decreases. Additionally, more experienced officers appear to be more dogmatic.

b. <u>Individual Personality, Values, Attitudes, and Role Perceptions</u>

- It appears that in more bureaucratic organizations, employees display higher levels of stress.

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| Police | Non-Police |
|---|---|

- Finding that officers who are more highly educated were less dogmatic.

- The literature indicates that police officers are more authoritarian than social workers and students who are not police career orientated.

- It appears that authoritarian attitudes do not increase or decrease with experience, although one study suggested that more experienced municipal officers tend to be more authoritarian. Another study found "innovative" officers are less authoritarian than "traditional" officers.

c. Commitment

- Higher organizational commitment was found for officers who had been on the force for a longer period of time.

- Indication that a participatory management style was a significant predictor of organizational commitment under conditions of high task variability, while supportive leadership behavior was the most significant predictor of organizational commitment under conditions of low task variability.

c. Commitment

- Finding that job satisfaction was positively related to organizational commitment.

- There appears to be some discrepancy concerning the relationship of group cohesion and organizational commitment. Two studies found a positive relationship, while a third study found no relationship between employee cohesiveness and commitment to the organization.

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| Police | Non-Police |
|---|---|

**Non-Police**

- The literature indicates that professionalism, seniority, and communication were associated with higher levels of organizational commitment.

- Indication that in larger organizations, employees felt less committed to the organization.

- The realization of social and normative incentives appears to be positively related to commitment.

**Police**

35. Group Cohesion

a. Employee Organization: Role and Impact

- Several studies have been conducted which examine the development and impact of police unions. Results indicated:

  - That police unions do not support a professionalization program unless officers are given tangible incentives (primarily monetary incentives).

  - Unionization appears to represent a response to the efficiency, cost-cutting perspective of police administration.

  - A key factor underlying unionization seems to be a sense of alienation.

**Non-Police**

35. Group Cohesion

a. Employee Organization: Role and Impact

- Indication positive relationships between city expenditures. One study found that economic difficulties (recession) negatively affects group cohesion.

EXHIBIT E (continued)

| Police | Non-Police |
|---|---|

**Police**

- There appears to be no consistent union position on education, although education has been shown to lead to greater compensation for those who become educated. A concern among police unions is that management develop some means of providing equity for those who do not have the opportunity to pursue additional education.

- The literature suggests that most police unions are opposed to minority recruitment, lateral entry, civilization, and the use of civilian review boards.

b. Group Interaction

- Finding that informal means (group peer pressure) affects the application of discretion.

- Group cohesion appears to have positive effects on satisfaction.

- Decentralization seems to positively impact group cohesion, although one study found that the more cohesive the work group, the greater the tendency to violate rules.

**Non-Police**

b. Group Interaction

- Finding that formalization of activities positively affects group cohesion, while centralization of decision making reduces employee cohesion.

- The literature indicates that hierarchical structure has differing effects on group cohesion. Low levels were positively associated with cohesion, while middle management tends to promote less cohesion among employees.

- Indication that in organizations that have greater "team collaboration", employees were more satisfied.

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| Police | Non-Police |
|---|---|
| | Collaboration does not appear to be related to organizational effectiveness. |
| | ● It apears that discretion has no effect on group cohesion. |
| | ● Training in organizational development appears to positively affect group interaction. |

36. Satisfaction

36. Satisfacton

- ● Finding that level of education is not associated with satisfaction.

- ● Finding that supportive leadership behavior was a significant predictor of job satisfaction. Further, officers were satisfied when their supervisor played a supportive role and helped clarify their role.

- ● Preliminary indication that functional and departmental specialization was not associated with satisfaction.

- ● Indication that police perceptions of turbulence in the environment or environmental uncertainty was negatively associated with satisfaction and commitment.

- ● Finding that task variability was positively related to employee satisfaction. Further, centralization of decision making leads to greater feelings of alienation.

- ● Finding that leadership behavior (i.e., showing support and consideration) has a positive effect on employee satisfaction.

- ● Alienation from work tasks and environment seems to be more prominent in highly-centralized and formalized organizations.

- ● Indication that greater communication within the organization positively affects employees' satisfaction with their job.

| Police | Non-Police |
|---|---|
| • Cynicism, role stress, and ambiguity in job tasks negatively impact job satisfaction. | • Employees in highly bureaucratic organizations (tall organizational structures) tend to be the least satisfied with their jobs, although one study did not find any such relationship. In addition, workers in large organizations appear to be less satisfied. |
| • One study found that group cohesion was related to job satisfaction, while another study found a positive relationship between group cohesion and alienation. | |
| • Written rules, training, internal communication, and decentralization were all found to positively impact job satisfaction. | • The literature indicates that workers who feel their job is challenging and responsible seem to be more satisfied. |
| • One study found that when officers perceived their environment as hostile and the crime rate was high, they felt more alienated. | • Employees who are more satisfied with their jobs are more committed to the organization. |
| • It appears that organizational change and professionalism does not affect an officer's level of satisfaction. Finally, no relationship was found between employee morale and performance. | • Indication that satisfaction is higher in organizations that use a collaborative team approach in decision making.<br><br>• Indication that monetary incentives, seniority, and geographic dispersion are positively associated with job satisfaction. |

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### Inferential Findings

The previous section has presented descriptive findings for the topics of employee adaptation, group cohesion, and satisfaction. This section considers these findings and identifies and describes their incorporation in a knowledge base concerning the informal organization in policing. This knowledge base contains findings addressing both knowledge strengths and weaknesses. Also described in this section is an estimation of the relative value of this knowledge base to the state of the art in police science and administration.

The specific sampled research studies on employee adaptation, group cohesion, and satisfaction yielded considerable knowledge pertaining to informal organization structures. Knowledge is produced here and elsewhere in this report from research studies that are methodologically sound and generalizable. There is an inherent screening process which was used in analyzing descriptive findings presented in the previous section. These findings were scrutinized to determine to what extent they were, in fact, generalizable. The knowledge base strengths and weaknesses for this particular chapter are grouped and discussed in three subject areas:

1. The Individual in the Police Organization.

2. The Work Group in Police Organization.

3. Police Officer Satisfaction and its Relevance for Police Management.

### The Individual in the Police Organization

Early studies of police officers and their working conditions, although usually qualitative and based on personal observations, tended to suggest that police officers possess a set of common social psychological characteristics; chief among these were cynicism, dogmatism, authoritarianism, prejudice, bigotry, and suspicion (see, for example, Westley, 1953, 1976; Skolnick, 1966; Wilson, 1967). Most of these early studies saw the development of these traits as a natural outcome of the police officer's working situation, and most presumed these traits to be detrimental to professional and responsibe police service.

These early efforts spawned a flood of empirical investigations of the police "working personality", as originally labelled by Skolnick (1966), which has continued unabated through the literature until today. The empirical studies tend to be survey-based and quantitative in method of measurement and analysis, and form one of the largest topic groups of studies on the police function. These studies tend to be subdivided into groups based on the particular personality trait being measured. Perhaps the largest such group are those studies assessing police cynicism: its measurement, attributes, and

effects. This topic is treated separately in this chapter because of its sheer popularity in the literature. Other personality traits (e.g., authoritariarism, dogmatism) are analyzed jointly in a separate discussion of the police personality. Also included in this analysis are reviews of research analyzing police role perceptions, individual attitudes, and values of the police. These two sections of this chapter seek to address two pertinent questions critical to an understanding of the role of the individual in the police organization. These questions are:

- Are police officers cynical, authoritarian, dogmatic, prejudiced?

- If so, how do police officers get that way? Is it due to the fact that certain personality types gravitate toward police work, or is it because police selection systems likely recruit and select individuals with certain personalities; or, does the working milieu of the police profession tend to create a unique set of police personalities?

There is, in addition, a broader question which will be acknowledged at this juncture, although it cannot be fully answered based on existing empirical research. This question, perhaps the most important, is to what extent does the police personality affect performance? Available, sampled research does not appear to provide knowledge on this question.

The variable entitled employee adaptation also includes one remaining sub-variable, that of employee commitment. The non-police literature tends to focus on this subject and, for the most part, does not include analyses of individual personality. Commitment here generally refers to efforts to integrate the individual, socially and psychologically, into the mainstream of the organization, thereby increasing the likelihood of the individual internalizing managerial objectives and directives.

Cynicism. The interest in police cynicism began with the publication of Niederhoffer's (1967) classic text on the role, attitudes, and integration of the individual police officer. Niederhoffer illustrated qualitatively the effect of the organization on the individual police officer from his/her first entry in recruit training, through his/her indoctrination into the life of the precinct, to the officer's assimilation into the working environment and occupational subculture of the police organization. Niederhoffer also developed and administered a survey questionnaire to quantitatively measure cynicism. Through this quantitative analysis, Niederhoffer found that age, length of service, education, ethnicity, functional assignment, and social class all affect cynicism. Seniority, in particular, was shown to have a curvillinear relationship with cynicism. Officer cynicism tends to increase in proportion to length of service for the first 5-10 years of service, peaking at approximately the 10th-12th year of service, and then holding at a

constant level until the 17th or 18th years, when it begins to decrease as an officer nears retirement. Niederhoffer considers this pattern and concludes that there are three types of cynicism exhibited in police officers (Niederhoffer, 1967: 103-107). The first type is pseudo-cynicism (similar to idealism) and this is displayed among recruits. The second form is romantic cynicism, reached in the first years of service and characterized by officer disillusionment with the job. The final type, agressive cynicism, corresponds to resentment and occurs in the 7th through the 10th year of service. These patterns can be depicted graphically as in Figure 19 below:

Figure 19

RELATIONSHIP OF SENIORITY TO POLICE

OFFICER CYNICISM



Years of Service
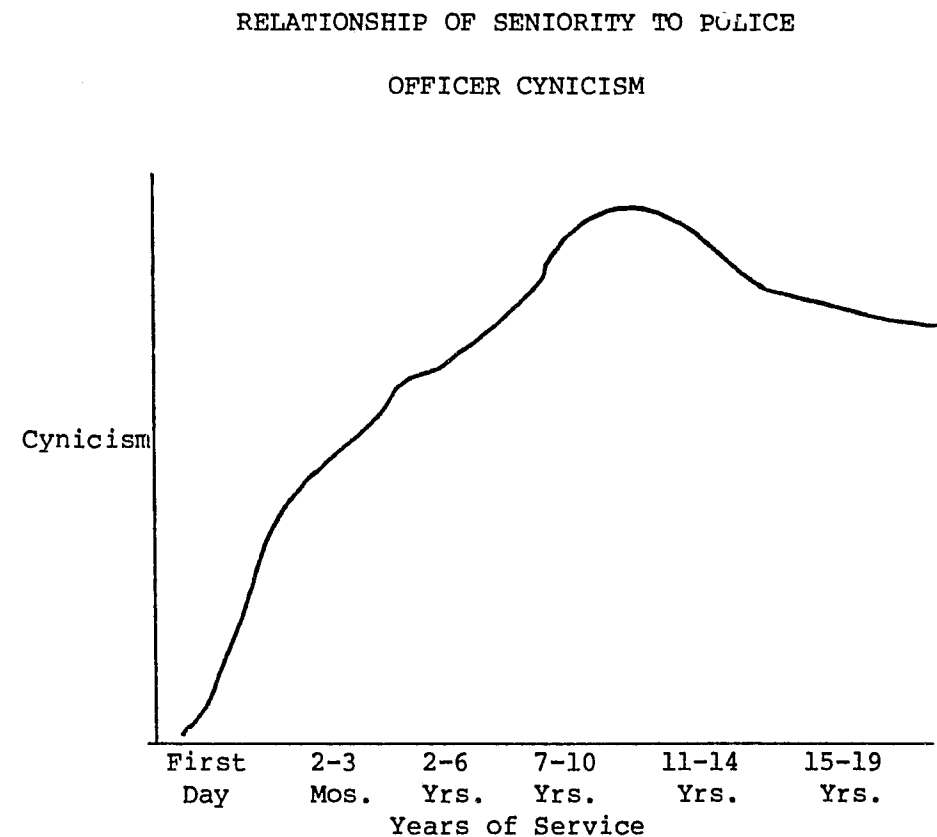
Niederhoffer's findings would be quite illuminating if they could be taken at face value. Other researchers, however, have re-tested his propositions with a critical examination of his cynicism scale. Regoli (1976b) has questioned the validity and reliability of Niederhoffer's cynicism scale and suggested that cynicism is not unidimensional, but in actuality has five dimensions. An officer may be cynical on one dimension but not on others. This finding was similar to the research of Lotz and Regoli

(1977:181) in which five dimensions of cynicism were identified: (1) cynicism toward relations with the public, (2) cynicism toward organizational functions, (3) cynicism about police dedication to duty, (4) cynicism about police social solidarity, and (5) cynicism about training and education. Regoli and Poole (1979), however, testing a smaller and different sample of officers, found only three dimensions after applying factor analysis to attitudinal data. These were: (1) cynicism toward others, (2) cynicism toward the ideals of police work, and (3) cynicism toward the conduct of police work.

What knowledge can be deduced from these discrepancies in measurement? Perhaps the best and only conclusion is that cynicism may vary by locale. This is supported by the work of Regoli and Poole (1978), wherein it was suggested that city police officers are more cynical than county police officers.

Niederhoffer's suppositions concerning the relationships between seniority and cynicism have also been questioned. Regoli and Poole (1978) found a decline in cynicism with increasing lengths of service. The same finding was observed by Weichmann (1979) in measurement of cynicism toward the judicial process, and posited by Lefkowitz (1973) showing that younger officers tended to be more cynical, closed-minded, and prejudiced. Wilt and Bannon (1976), however, measured cynicism among Detroit police officers and found similar results to the Niederhoffer study. Similarly, the research of Lotz and Regoli (1977) supported Niederhoffer's profile of the relationship between seniority and cynicism.

The same conflict in research findings can be observed concerning relationships between education, professionalism and cynicism. Regoli (1976a), Wilt and Bannon (1976), and Weiner (1976) have concluded that education is not related to cynicism, as was suggested by Niederhoffer (1967:106). This earlier research concluded that higher educated officers would be more cynical because their expectations for promotion were greater.

The relationship between professionalism and cynicism has been tested by Lotz and Regoli (1977). They find that on first observation there is a positive relationship between cynicism and professionalism, but that this relationship is tempered by the multidimensional characteristics of cynicism: only one dimension appeared to be substantially linked to cynicism (Lotz and Regoli, 1977:183).

These conflicts in the findings prohibit, at this time, the drawing of conclusive inferences concerning cynicism. It may well be that variation in department style or community culture affect cynicism measures. This supposition can be inferred from this reviewed research, but not substantiated. Certainly this relationship could be tested in further research.

Given these variations in findings concerning cynicism, to what extent does the literature relate cynicism to performance? This linkage has, for the most part, not been addressed. Regoli, Poole, and Hewitt (1979) found that cynicism is positively related to alienation among police officers, but can it be inferred that greater alienation is negatively correlated with performance? This is not researched in this or any other study.

Perhaps the only implications concerning this relationship can be drawn from Muir's (1977) study of the police in one city. Muir suggests that cynical police officers are simplistic in their dealings with citizens. They avoid interaction with citizens, or they resort to use of force as a hallmark characteristic of their work. Further, cynical police officers stereotype citizens as much as they themselves are stereotyped. Muir's sample is small, however, and his analysis largely qualitative, and thus his findings cannot be generalized. Consequently, it is not possible to deduce any conclusive findings concerning this relationship. This would appear to be an area ripe for research. Such research should likely consider variations in education, background, and self-perceived professionalism to control effectively for these influences on cynicism.

## Individual Personality, Values, Attitudes, and Role Perception

Just as numerous researchers have investigated cynicism, many students of police administration have also addressed other elements of the "police personality." Two such elements are authoritarianism and dogmatism. Research findings are conflicting, however, as to the actual measurement of such personality traits.

Several researchers have shown that police officers have authoritarian personalities. Trojanowicz (1971) found that police officers are more authoritarian that social workers, while others have found that police officers are more authoritarian than college students who are not police-career oriented (Smith, Locke, and Walker, 1967, 1968; Smith, Locke, and Fenster, 1970; Sterling, 1970; Carlson, Thayer, and Germann, 1971). The police have also been shown to be more authoritarian than students who are corrections oriented (Culbertson, 1975), even when educational backgrounds and aptitude are controlled. Bayley and Mendelsohn (1969), however, concluded that police in Denver were no more authoritarian than the majority of the general citizenry.

This last finding raises the question of whether the police are actually any different than other citizens in the social group from which the police are recruited. This finding was suggested by McNamara (1967). These conflicting findings raise the question of validity in measurement of authoritarianism. Fabianic (1979) has addressed this factor in a review of

research on authoritarianism in policing and indicates that (Fabianic, 1979: 53):

> Considerable confusion and lack of agreement have resulted from the manner in which the authoritarian concept has been applied and utilized. Much of the inconsistency and ambiguity are a consequence of a variety of factors, acting separately or together; including a lack of conceptual clarity and specificity, inadequate research design, improper generalizations, and oversimplification of phenomena.

Thus, it may be inappropriate to examine the notion of authoritarianism further. The conflicting findings concerning the relationship between authoritarianism and seniority may perhaps be explained by these methodological problems. McNamara (1967), for instance, found that authoritarianism increased with seniority while Smith, Locke, and Fenster (1970), and Genz and Lester (1970) found no such correlation. The study by Smith, Locke and Fenster (1970), moreover, found the effects of age and college education to be so confounded to almost preclude generalization. Their findings for various groups that they studied are shown in Figure 20 below:

Figure 20

CORRELATIONS OF RELATIONSHIPS BETWEEN
POLICE OFFICER AGE AND EDUCATION AND
AUTHORITARIANISM

high

Authoritarianism

- (.31)  Non-college police (general sample)
- (.02)  Veteran police, in college
- (-.13)  Veteran police, non-college
- (-.23)  Young police in college
- (-.45)  Veteran police officers who are college graduates.

low
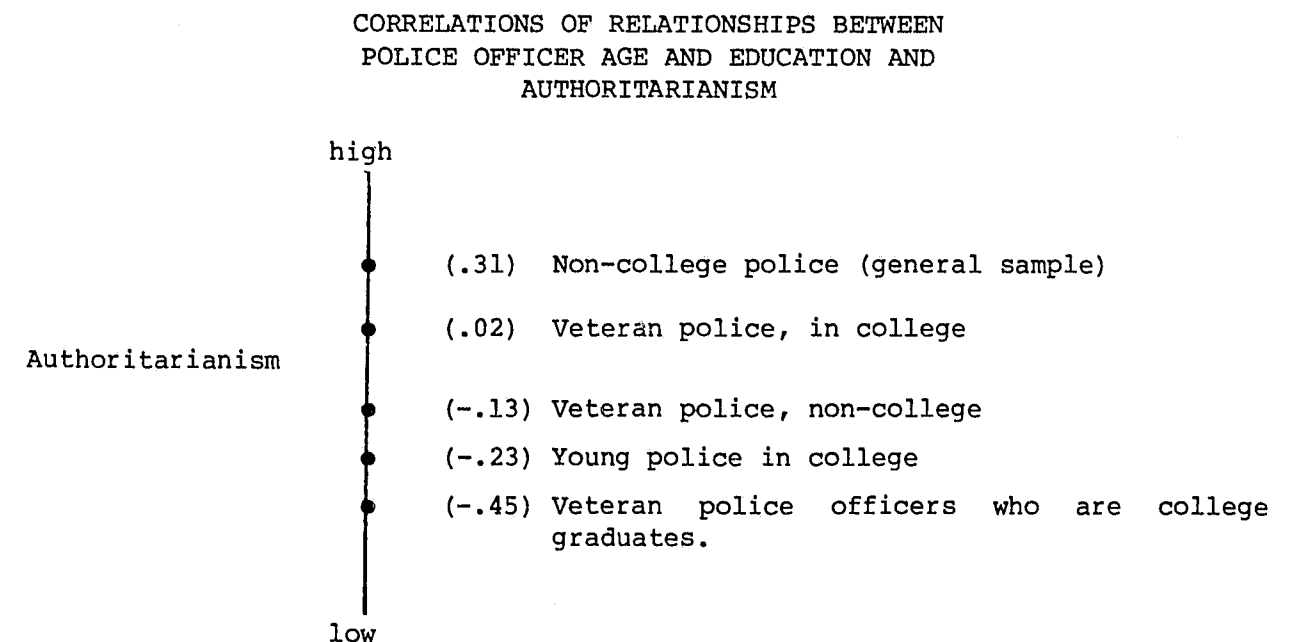
These correlations raise the question of whether or not sufficient, reliable research has been conducted to assess satisfactorily the linkages between authoritarianism and other demographic and departmental variables. Too many questions remain to offer a sound knowledge base on this personality trait. Certainly there is ample reason to believe that certain police officers may exhibit authoritarian personalities, but what other characteristics accompany this trait, and to what degree does socialization in the police agency affect individual proclivities toward authoritarianism? The literature vividly portrays the influence of socialization on police attitudes; would it not then influence the police personality [56]. Answers to this question only can be found through additional research.

The literature also presents some evidence over problems in the measurement of dogmatism. As was the case with authoritarianism, researchers have shown that law enforcement oriented students and police officers tend to be dogmatic (Smith, Locke and Fenster, 1970; Teasley and Wright, 1973; Culbertson, 1975). Regoli and Schrink (1977:235), however, suggest that there is only a weak relationship between "occupational preference" (used to measure a police orientation among college students) and dogmatism and thus previously reported research differentiating between "occupational preference" groups may be called into question. Further, researchers have used different attitudinal scales to measure dogmatism, and some even have measured authoritarianism and dogmatism with the same scale.

Addressing these concerns, Rokeach (1960) was perhaps the first researcher to suggest that dogmatism is separate from authoritarianism as a personality trait and that a new, unique scale should be developed to measure dogmatism.[57] Considering this argument, Carlson, Thayer, and Germann (1971) tested both an authoritarianism scale and a dogmatism scale on one sample and found that the two concepts are separate and distinct and that research that purports to measure both synonymously, as was the case with early research on dogmatism, may suffer from methodological problems.

Further, as illustrated by Regoli and Schrink (1977), earlier studies (especially Culbertson, 1975) did not employ adequate statistical analysis techniques to conclude effectively that police oriented college students were any more or less dogmatic than other students. Regoli and Schrink (1977:235) suggest that there is a need for further research to assess these variances

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[56]/A discussion on the various influences of socialization is presented in Chapter IV: Internal Structural Differentiation.

[57]/Rokeach has defined measures of dogmatism as measures of openness or closedness of belief systems.

among college students' personalities, and that such research should "explore the effects of additional variables in accounting for differences in dogmatism."

These conflicts in measurement and analysis do not offer knowledge base strengths regarding the action of dogmatism in police officers. Furthermore, they do not lend credence to efforts to analyze the effects of law enforcement programs or policies on dogmatism (e.g., analysis of the effects of training on dogmatism, Teasley and Wright, 1973).

This conflict in research findings and discussion of the effects of management efforts to alter police values extends to general discussions of the individual personalities of police officers. One stream in the literature suggests that the police are no different in personality than individuals in the general social class from which they are recruited (McNamara, 1967; Bayley and Mendelsohn, 1969). Beginning with the publication of the study by Rokeach, Miller, and Snyder (1971), however, researchers began to observe that police officers have value systems that are distinctly different from those of other Americans but, as posited by McNamara (1967) and Bayley and Mendelsohn (1969), are similar to the social class from which they are recruited. In this study, these researchers administered a survey designed to measure "values" as being critically important in determining attitudes and social and political orientation. Their research showed that police officers are primarily conservative and moralistic in their value structure. Rokeach, Miller, and Snyder (1971:166) also suggest that the police sub-culture, or "working personality," as described by Skolnick (1966) and others may be due to selective recruitment patterns where police candidates from certain "social strata" and with like personality factors within such strata are recruited.

The findings of Rokeach, Miller, and Snyder (1971) that the police exhibit different values than the public at large are supported by the works of Griffeth and Cafferty (1977) and Cochrane and Butler (1980). This latter study suggested there are differences in values between the police and the policed in Britain, as well as in the United States. These analyses of the individual police personality are also augmented by the findings of Walther, McCune, and Trojanowicz (1973) and Cochrane (1975), positing that there is a distinct police personality. The police, according to Walther, McCune, and Trojanowicz (1973) place a high value on being considered reliable, dependable, and trustworthy, and often prefer to be supervised by others and work in structured situations. Cochran (1975) offers similar observations, indicating that police officers prefer a work environment with a well-defined hierarchy with attendant values of absolute authority.

What implications do such findings have for police management and do these results hold when other research assessing the socialization of police officers into the police occupational environment are considered? Generally, the findings that there is a distinct police personality different than that

exhibited by other citizens raises questions about the merits of traditional police recruitment practices--they may be judged to recruit individuals with homogeneous backgrounds.

Other researchers, however, have questioned the notion that the police personality is due to selective recruitment practices and suggests that variations in value systems between the police and the public are due to socialization into the police force. Niederhoffer (1967) suggests that the police personality and inherent cynicism and authoritarianism are due to the officer's experiences in the agency. This observation has been verified quantitatively by Savitz (1970) showing that the police values of internal loyalty are learned through experience and by Dalley (1975) indicating that seniority, as well as education may influence police value systems. Bennett and Greenstein (1975) also reach a similar conclusion based on their concurrent administration of a value measurement survey to a sample of college students and a sample of police officers. Further, Tifft (1976) shows that personality and attitudes toward the public by police varies by the police officer's assignment and hence experience and socialization into a work group. Similarly, Teahan (1975: 47-56) found that the police officers' "hedonistic orientation" and "detachment from social commitments" to be a product of socialization. Finally, Van Maanen (1975) found no evidence to support the selective recruitment argument. He (Van Maanen, 1975: 215) suggests that the:

> . . . recruit's demography was not in any way related
> to their eventual profile. Consequently, the police
> culture can be viewed as molding the attitudes--with
> numbing regularity--of virtually all who enter.

It should be pointed out here that Van Maanen's (1975) study focused on measures of motivation, organizational commitment, and need satisfaction and not necessarily on values. This points to perhaps one of the basic difficulties inherent in existing research on the police personality--that of variation in measurement; both in terms of the variables and the methods employed. Perhaps researchers have developed too broad a spectrum of the police personality and have not yet come to any consensually defined set of criteria comprising the police personality.

Beyond this, what additional insight can be provided by these findings? The debate over which has the most predominant influence on police value systems, individual personality attributes of the social group from which police are recruited, or socialization, cannot really be reconciled at this point. It may be that both play a critical role; police have similar values to the population from which they are recruited, whereas there are also distinct differences between the values of experienced officers and the general community. If this is the case, it may be that there is no such thing as a police personality and that social class and organizational

characteristics both have an influence on personality traits. This has been suggested in a review of the literature by Balch (1972). These net influences can be diagrammed as presented in Figure 21 (Balch, 1972: 117):

Figure 21

RELATIONSHIP OF SOCIAL CLASS
ORIGINS AND ORGANIZATIONAL
CHARACTERISTICS TO POLICE PERSONALITY
TRAITS
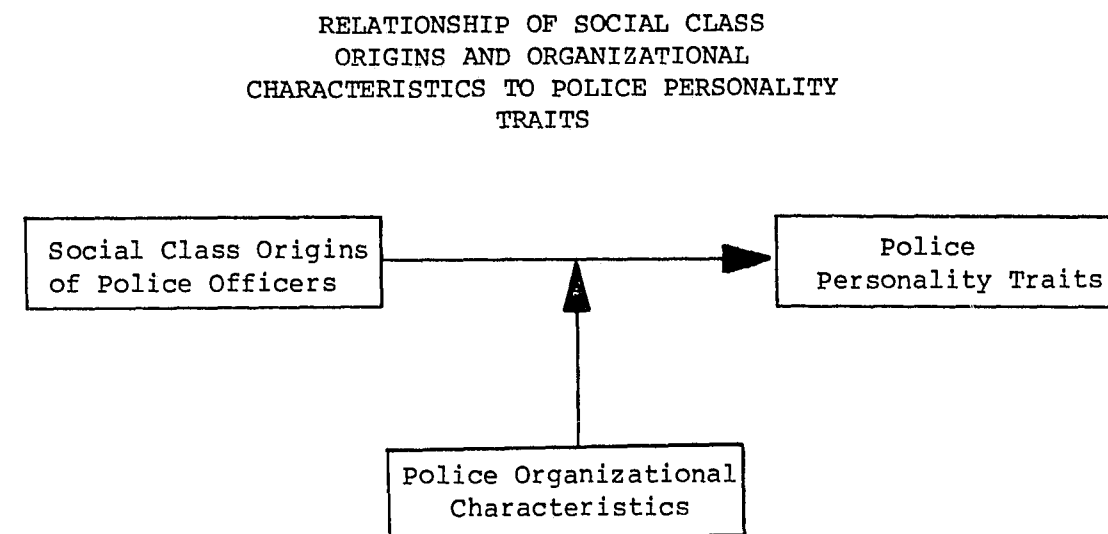


The only possible addition to this model may be the relevant community characteristics of the officer's work environment in line with the suggestions of Westley (1953), Skolnick (1966), and Rubinstein (1973). Even with these additions, however, this model is plausible, eminently testable, and specifiable. Given a large enough sample, researchers could conceivably test for the interaction effects of the police officer's origins, work setting, and position and experiences in the police organization on personality traits.

Perhaps when the net effects of these influences on the police personality are diagnosed, it will be feasible to initiate assessments of the relationship between personality traits and performance. The literature is virtually silent on this relationship, although management analysis of this relationship may prove to be the most important contribution to the state of the art. What is the ultimate detriment, if any, of the police personality on performance? If such a detriment can be shown, then management can begin to develop programs to modify or alter individual police values and attitudes, or recruit individuals with different values and attitude systems.

Commitment. The analysis of this final element of the variable employee adaptation will take on a different form than the two preceding discussions. The police literature by and large contains only limited research on organizational commitment of police officers. The general management literature, conversely, has extensively considered and analyzed this variable.

Commitment is normally referred to as the described state of affairs wherein an employee internalizes the norms and expectations of the organization and places a high value on achieving organizational goals and objectives. This is obviously a desired condition which management strives to achieve in all organizations. Buchanan (1974) has reviewed and summarized the salutary effects of commited employees and suggests that there are several, including:

- Willingness of an employee (member) to exert high levels of effort on behalf of the organization.

- Strong desire to stay with the organization.

- Degree of belongingness or loyalty to the organization.

- Acceptance of major goals and values of the organization.

- Positive evaluation of the organization.

If it is agreed then that organizational commitment is a desired state of affairs, how can managers instill commitment among employees? Research in the private sector has shown that individual commitment is determined by both social status and achievement, as well as personal achievement within the organization. The linkage between social attachment and commitment has been shown by Baumler (1971), Sheldon (1971), and Buchanan (1974). Sheldon (1971) suggests that social involvements are attributes of commitment, while Buchanan (1974) indicates that "current group attitudes" toward the organization and "work commitment norms" were correlates of commitment. Baumler (1971) suggests, however, that the influence of group interaction (social commitment) may depend on individual personality and that individuals preferring formalized rules and procedures may be more apt to be committed by such management practices, while others interested in group interaction are more highly committed by such social interaction and not formalized rules.

This finding suggests that there may, in fact, be a difference in levels of commitment among varying levels of personnel in the organization. Thornton (1970) shows that organizational involvement (social interaction) among employees may result in commitment for non-professional employees, but decreases for professional work situations. If such a difference occurs, is

it due to individual achievement, or professional as opposed to organizational commitment? The literature suggests that each may have a significant influence.

Buchanan's study (1974) of business and government managers shows a variation in organizational commitment according to seniority and personal achievement. As a manager's seniority and concurrent responsibility increases, his or her realization of expectations and "work involvement norms" (internalized professional norms) take on increasingly important roles in determining commitment. At an early stage in a manager's career, first year job challenge, as well as group attitudes toward the organization, appear to be the predominent correlates of commitment.

This finding is consistent with the research performed by Sheldon (1971) showing that, although social incentives are determinants of commitment, investments in the organization (defined as age, tenure, and hierarchical rank) are perhaps stronger influences on commitment. This finding appears to indicate that seniority and tenure are important determinants of commitment, because increasing investments in the organization are likely to be highly correlated with tenure.

A research study by Hrebiniak and Alutto (1973:555) also shows this linkage, indicating that commitment is an "exchange and accrual phenomenon, dependent upon the ratio of inducements to contributions and the accumulation of side bets or investments in the employing system." Years of experience in the organization are an important variable here, as investments in the organization are likely to increase with tenure.

Tenure may not be as critical a criterion of commitment to some individuals as it is to others. Hall and Schneider (1972) studied patterns of commitment in various forms of organizations and concluded that tenure was a stronger determinant of commitment for individuals who had spent their entire career in one organization than it was for individuals who have been more mobile and moved from organization to organization. This is an important finding with relevance for the police field since most police officers still spend the majority of their career in one organization; tenure is thus likely to be a strong correlate of commitment in the police organization.

The police sample contained two studies addressing commitment. The most enlightening sampled research study in the police discipline is the research by Van Maanen (1975). Conclusions set forth in this document parallel several of those cited above in the non-police literature. Van Maanen measured job commitment of police recruits through the administration of a repeated survey completed during each of the first six months of recruit training (this included on-the-job training, as well as formal academy training). He found (Van Maanen, 1975:217) that there was a significant decrease in commitment across time although the relative level of commitment remains high (when compared with commitment scores of other occupational

groupings). Van Maanen attributes the decrease in commitment to socialization effects in the police force and suggests that the relatively high level of commitment is due to (Van Maanen, 1975:218) strong department loyalty, ingroup solidarity, and cohesiveness, and that these factors also may contribute to commitment.

Van Maanen also finds that there is a high degree of correlation between commitment and supervisory evaluations of performance. This implies that there is a high degree of association between personal achievement, as measured by others, and commitment.

How do Van Maanen's findings compare with those in the general management sample? Although it is difficult to derive a precise comparison, due to Van Maanen's limited time span of evaluation (the first six months of a career), some similarities are evident. As noted by Buchanan (1974), the importance of group attitudes toward the organization as a determinant of commitment is most predominant for first-stage managers (those who had one year experience). This may be similar to Van Maanen's in-group solidarity and cohesiveness. It is not until managers achieve greater tenure that this influence appears to take on less importance.

Further, Van Maanen's finding that supervisory evaluations are also strongly correlated with commitment supports the proposition alluded to above that individual achievement is a correlate of commitment. Again, Van Maanen's time frame of analysis is too brief to support this proposition firmly, but certainly the implication arises from his findings.

The only other study sampled in the police literature sheds further insight into the role of supervisors in shaping organizational commitment. Jermier and Berkes (1979) investigated the relationship of task variability and job interdependence to supervisory styles with an interest in determining which styles generated greater officer commitment. Jermier and Berkes (1979:16) demonstrate that participatory leader behavior (defined generally as a consultative leadership style) is positively associated with high commitment when tasks are highly variable and require high degrees of interdependence, while supportive leadership behavior (defined primarily as behavior which clarifies roles, work assignments, and procedures) was positively associated to commitment when tasks were highly predictable. This research indicates that not only supervisory evaluations, but also style of supervision and task structure affect commitment. Jermier and Berkes (1979), however, conclude that task structure is an intervening variable between supervisory performance and reported commitment.

It may then be appropriate to deduce a set of propositions relating individual and occupational traits to organizational commitment. This model certainly should be tested further in the police organization, but is worthwhile positing here for consideration:

● Organizational commitment is produced through a combination of factors including social status, social interaction with supervisors and peers, job achievement and hierarchical advancement, and perceptions of access to organizational hierarchical levels.

● At the early stages of a career, group cohesiveness, as opposed to individual achievement, takes on a more direct role in influencing commitment.

● As a career progresses, individual achievement assumes a more predominant role as a correlate of commitment. This achievement is manifested through tenure and hierarchical rank.

● At some point in one's career progression, individual achievement may be associated with professional achievement and hence, professional commitment becomes a significant determinant of commitment.

● Participative leadership behavior has a positive influence on organizational commitment when the work task structure is variable and interdependent. Supportive leadership behavior is associated with employee commitment when task structures involve highly predictable activity.

The interaction of these various influences cannot be clearly defined at this point, but could be tested through research in the police environment. Such research would be complex and require longitudinal measures, but would help clarify the relationship of the numerous variables associated with commitment.

## The Work Group in the Police Organization

The importance of the work group in the organization was first recognized in the 1930's in studies designed to assess the role of the informal organization on productivity. The study by Mayo and his colleagues of informal work groups at the Western Electric Company (Roethesberger and Dixon, 1939) revealed that work groups could affect an organization's performance, either positively or negatively, depending on the relationship of the informal norms of the group to the norms of the organization. This research spurred additional analyses of the effects of work groups, generally by social psychologists. Likert (1961:30) summarized the results of this research, concluding that:

Work groups which have high peer-group loyalty and common goals appear to be effective in achieving their goals. If their goals are the achievement of high productivity and low waste, these are the goals they will accomplish. If, on the other hand, the character of the supervisor causes them to reject the objectives of the organizations and set goals at variance with these objectives, the goals they established can have strikingly adverse effects upon productivity.

This survey indicates that work groups can have either a positive or a negative effect on productivity. Under what conditions is either outcome achieved? Moreover, what managerial practices appear to encourage greater group adoption of organizational norms and expectations? These and related questions are examined in this section.

A considerable portion of the police literature addressing this variable focuses on the formation of unions and their influence on police agencies. This is not the critical focus in the non-police domain where emphasis is placed on measurement of the role and outcomes of the work group. This differentiation in study content promoted the use of sub-variables for this subject. The two sub-variables are each analyzed separately below. They are:

- Employee organization: Role and Impact
- Group interaction.

## Employee Organization: Role and Impact

The police literature sampled for this study contained numerous studies on the role and impact of police unions, albeit these studies were primarily qualitative case studies and reflect a general interest in describing reasons for police union formation and growth, rather than an emphasis on management efforts or initiatives to quell the union movement or to foster positive results from union activity.

It should be pointed out here that the police union, or its less developed and perhaps less militant surrogate--the police employee association--may or may not be a work group as defined in the general management literature. Oftentimes, police union activity occurs totally outside of the formal work group and, on occasion, there may be more than one employee association in existence in a police department. Thus, it may be difficult to transfer the knowledge concerning use of work groups from the social science sample to the police discipline. Nevertheless, union or

employee association activity is a form of social cohesion and thus will be analyzed as a component of this variable.

Perhaps the most comprehensive analysis of police union activity has been conducted by Juris and Feuille (Juris, 1971; Juris and Feuille, 1973; Feuille and Juris, 1976). Unfortunately, from the perspective of this study, these authors only conducted one empirical study of police unions and even this investigation had a limited methodology.

Despite these difficulties, the observations of Juris and Feuille are worth noting. In their study of union activity in 22 cities (Juris and Feuille, 1973), these researchers summarized the environmental and organizational factors contributing to unionization, suggesting that (1) hostility toward the police by citizens; (2) increasing job complexity, and (3) increasing demands for law and order are external reasons for the development and institutionalization of unions. Among the internal organizational factors contributing to unionism are perceived low rewards in relation to increased job difficulty and poor management/personnel practices.

Juris and Feuille (1973) elaborate on the consequences of unionism showing that increased unionization has led to (1) greater stratification between black and white police officers; often the formation of unions or employee groups precipitates the development of a minority employee group, and (2) increased management/employee tension which pervades decision-making processes and frustrates attempts by politicans to change the police organization. One is left with the clear impression, from Juris and Feuille's work, that unionism fosters increased group solidarity in policing, a tightening of the web of secrecy surrounding police organizations, and increasing resistance to change. This latter notion is supported by Feuille and Juris (1976) in their analysis of the relationship between unionism and professionalization in policing. In this study Feuille and Juris note that unions are usually opposed to minority recruitment, lateral entry, and greater civilization of the police force.

This review of police unionism suggests that unions will tend to support the status quo and generally oppose professionalization in policing.[58] Cooper (1974) has studied the relationship of unionization and professionalization and has generally concluded that each of these movements is occurring simultaneously in policing and each embodies conflicting sets of values. Cooper (1974:33) suggests that the trend toward professionalization

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[58] Professionalization as defined here refers to increasing education and training for police officers, greater emphasis on cost-efficiency and productivity, and an increasing reliance on specialization and technology by police chief executives. This subject is addressed in greater detail in Chapter IV: Internal Structural Differentiation.

could be accompanied by "substantially increased salaries, a larger role in decision making, and increased social status," while trends toward unionization, on the other hand, may be accompanied by "continued social alienation, undiscriminating public demands for tax reduction and cost cutting, and resistance by short-sighted, efficiency-oriented police leadership to the granting of substantial rewards and recognition for becoming 'professionalized'."

This dilemma appears to focus on differing conceptions of professionalism in policing. As discussed earlier in this report, there are two competing conceptions of professionalism in policing. One such notion, often espoused by management, accentuates the need for improved efficiency, an opening of the police ranks to minorities and females, the use of lateral entry to recruit qualified managers and supervisors from other police agencies, and a greater integration of civilians into the police force, among other needed reforms. The opposing conception is characterized by the need for increased autonomy for police officers, higher salaries, a greater involvement in decision making, and better working conditions, as well as other changes which would upgrade the status of the police officer. As suggested by the available, reviewed research on unionism, the competing nature of these two opposing movements will spur continuing and increased militancy among police unions. The extent of such conflict has not, to this point, been clearly depicted through sampled empirical research. Additional research is thus needed to explore further the results of these conflicting trends.

One sampled research study indicates that a reason for militancy of police unions is a lack of ample recognition by management of the role of the union leader (usually the elected President). In this study Gentel and Handman (1979) indicate that the police union leader receives considerable pressure from the union membership to win concessions from management and that police administrators often do not acknowledge this pressure. This is cited as one factor producing police strikes.

This observation raises several questions pertaining to the role of the police union leader and relationships between such leader and management. What is the magnitude of this pressure for concessions and how does the "successful" versus the "unsuccessful" union leader respond to such pressure? Moreover, what role does this push for change on the part of unions play in collective bargaining, particularly in situations where impasses occur and binding arbitration is mandated by statute? How do certain police chief executives and government officials avoid potential damaging union actions (e.g., strikes, sick outs) through negotiation processes with union leaders? These and other questions cannot be answered from existing sampled research. In short, there is a need for additional empirical research to explore labor-management relations and vividly describe the roles pertinent actors play in this relationship.

In summary, police unionsim has not been subjected to numerous, thorough, empirical investigations. The available research, as identified for this study, does not permit the development of firm relationships among managerial and organizational variables. Rather, the literature describes a number of possible linkages between community and organizational conditions and the development of unions, and suggests plausible relationships between union interests and management reforms. These suggested relationships present opportunities for further research.

Group Interaction. Sampled studies from the police literature, as well as research in the general management and social science disciplines, offer several illuminating observations of the role of the work group in organizations. The police literature is by and large descriptive, but clearly depicts the significance of the work group in the police agency.

Early, qualitative observations of police organizations (Westley, 1953, Skolnick, 1966, Reiss, 1971) characterize the role of the informal work group as having a significant influence on the norm of secrecy among police officers, the occupational culture of police, and the degree of conformity to organizational policies and procedures.[59] This research clearly indicates the paramount importance of the social group in policing, although these early works were for the most part descriptive and did not include quantitative demonstrations of the influence of the informal group.

More recently, research has shown that the informal group has a pronounced effect on police discretion and hence performance. Studies by Gardiner (1968) and Petersen (1971) denote the impact of the informal group on police ticket-writing behavior, while a study by O'Neill (1974) suggests that peer relations, perhaps more than any other administrative or organizational factor, significantly influence police officer conformity to rules, policies and procedures. Moreover, group cohesion may also play an important role in determining a police officer's satisfaction with his or her job and department (Slovak, 1978).

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[59] The role of the informal work group is differentiated from the formal work group in the general management literature. See, for example, Blau (1955), Sherif and Sherif (1956), Likert (1961), and Schein (1967). Schein (1967:69) distinguishes between three types of informal groups: (1) the horizontal clique consisting of employees of the same rank, (2) vertical cliques composed of individuals of differing ranks but assigned to the same unit, and (3) mixed cliques made up of members of various ranks and unit assignments. Sherif and Sherif (1956:175-177) suggest that organizations consist of reference groups--those to which the individual relates or aspires, and membership groups--those to which the individual belongs.

Although these studies have provided insight into the effects of the group on police organizations, there is still the prevailing question of how police managers can use groups effectively. Additionally, there is little knowledge presented in the police literature concerning the formation of groups; the relationship between the formal work group and informal work groups. Finally, and perhaps most importantly, there is little or no research, at least as identified by this study, describing managerial or supervisory methods of coordinating the work group.

To what extent does the general social science literature reveal findings? Other than the famous Hawthorne studies (Roetheisberger and Dixon, 1939) discussed at the outset of this chapter, research in several other environmental settings has shown that supervision accentuating group interaction is positively associated with improved performance. One of the early studies of this relationship was performed by Likert (1961). His research suggests that effective organizations utilize a "linking pin" pattern of managerial communication to tie together vertically differentiated formal groups. Such formal groups are composed of a supervisor and a number of subordinates. Individual group problems, when identified in a group discussion among members of a formal group, can be communicated by supervisors to the next highest level so that appropriate managerial action to resolve a problem may be enacted, or so that feedback on issues of concern to the work group can take place rapidly on the basis of full information.

Other research studies by Aram, Morgan and Esbeck (1971) and Smith (1971) signify that "collaborative" management models (likely found in organizations where the linking pin style of interaction is evident), as opposed to "supportive" management styles, tend to foster greater group involvement and, hence, improved performance and employee satisfaction. This increased group cohesion has also been shown to positively affect employee commitment to the organization (Miller and Wagner, 1971; Marsh and Mannari, 1977).

Certain management theorists have recognized the value of such interaction and proposed specific training programs (often described as organizational development) to promote greater intergroup expression of problems. Golembiewski and Carrigan (1970a, 1970b) describe such a training program and demonstrate the effects of such training on improved intergroup and interpersonal communication and problem-solving abilities. Moreover, the effects of organization development training were still evident four months (1970a) and eighteen months (1970b) after the training was completed.

If such interaction is desirable, how does it take place and what effect, if any, does organization structure have on group interaction? Hierarchical organization structures may more easily adopt "linking pin" methods of group interaction (Smith, Moscow, Berger, and Cooper, 1969; Rossel, 1971), whereas organizations with a highly differentiated structure (based on a high degree of division of labor) may find it more difficult to induce

positive performance from work groups (Bridges, Doyle, and Mahan, 1968). Such organizations may then require a greater emphasis on what have been described as "primary ties," as opposed to "instrumental ties" (Lincoln and Fry, 1979). These terms can be analyzed using Sherif's and Sherif's (1956) distinction between reference groups (those informal groups outside of the hierarchical structure) and membership groups (those groups formally consistituted by the organization). Primary ties constitute those relations between reference groups while instrumental ties characterize relationships between membership groups.

Lincoln and Fry (1979) demonstrate that certain individual factors (e.g., sex and race) are likely to have a more positive and direct effect on primary ties, while authority and education appear to have a greater influence on instrumental ties. This occurs, according to Lincoln and Fry (1979:196), because:

> Certain attributes of organization participants (e.g., authority and education), particularly that confer status both in the organization and in the larger society, influence network ties by placing high-status persons in central positions.

Lincoln and Fry (1979:196) continue by pointing out that these influential ties (i.e., instrumental) are more likely to be found in management systems that tend to be more hierarchical in form. This further signifies that hierarchical structures may find it easier to manage formal groups.

Research has also suggested that structuring of work activities promotes greater integration of formal work groups (Pheysey, Payne, and Pugh, 1971; Child, 1973a). This is likely because of the structuring of inter-relations between units. Again, this integration refers to formal groups and not necessarily to informal groups.

Concentration of authority may not, however, promote effective group interactions (Child, 1973a). This occurs because managers working within such structures tend to minimize the importance of inter-group communication. Since supervisors at lower levels have limited authority under such a system, it is sometimes deemed less important to maintain this communication. A decentralization of authority then is likely to stimulate increased group interaction. This relationship has been suggested in the police literature. Dimieri (1976) has concluded in his study of the New York Police Department that this effect does indeed occur.

Structure then has mixed effects on group interaction. Management may find that a hierarchical structure facilitates greater formal interaction, especially where work activities are highly structured. Centralized decision making, however, would seem to discourage work group interaction.

The reviewed literature on group interaction implies the existence of a number of firm relationships between management practices and effective group interaction. These relationships can be portrayed as testable propositions. These propositions are:

1. Management systems which promote greater interaction of work groups, both vertically and horizontally differentiated, will achieve improvement in employee satisfaction, commitment, and performance.

2. Effective group interaction is enhanced through collaborative management practices as opposed to supportive managerial styles.

3. Hierarchical organization structures, wherein work activities are highly formalized, promote greater integration of work groups.

4. Concentration of decision-making authority discourages, rather than encourages, group interaction.

5. Group interaction is manifested through communication network ties to other organizational members. The nature of these ties are either instrumental, primarily occurring between membership groups, or primary ties, occurring between reference groups, not necessarily constituted as a formal group. Instrumental ties are generated more often by similarities in status, while primary ties are produced as a result of similarities in biographical or personal factors.

What significance do these relationships have for law enforcement? The desirable outcomes of group interaction efforts are, of course, a goal worth pursuing in law enforcement as in any organizational setting. The key is for police managers to develop collaborative management and supervisory skills to promote effectively and coordinate group interaction. To date, the research in policing indicates only limited empirical examinations of such management practices, although experiences in other settings are transferable to the police environment.

The fact that many police agencies exhibit hierarchical structures may actually enhance management's capability of instituting group interaction methods. This is not to say that other organizational forms cannot sustain effective group interaction practices, it is only to suggest that existing reporting relationships in many police agencies are suitable for the adoption of Likert's (1961) linking pin strategies where increased two-way

communication between organizational levels is established. Decentralized decision-making systems are likely to facilitate greater interaction within work groups. In police organizations this suggests that greater delegation of authority by the chief executive to lower level managers may also foster increased group interaction.

In policing, as in other disciplines, there is the need to recognize the importance of informal groups composed of members with similarities not brought on by status but by other personal characteristics. In police organizations, minorities, females, and seniors, as opposed to younger officers, may be members of informal work groups. Management should recognize the role and composition of such groups in its effort to integrate group needs and interests with organizational objectives.

Police Officer Satisfaction and its Relevance for Police Management

The terms "job satisfaction" and "employee morale" are often used to describe an individual's or a group's sentiments toward their jobs. These terms are used extensively in the literature and oftentimes are not accompanied by adequate definitions; they are also used interchangeably in the context of a desired outcome in the work place. To begin, satisfaction and morale are not synonymous. They have the same organizational and situational components--that is, conditions which affect both satisfaction and morale--but "they apply to different levels within the organization: satisfaction connotes individual likingness of a job while morale refers to group perceptions of the job" (Applewhite, 1965:25). This is an important distinction because management actions to improve either satisfaction or morale can conceivably affect one and not the other. This is likely to occur if there are several work groups in the organization. Actions to increase the morale of a given work group may actually decrease the satisfaction of individuals not in the group or included in alternative groups.

Given this distinction, it is important to probe further in clarifying definitions of satisfaction and morale. Satisfaction and morale are closely aligned with attitudes and values. An attitude is the predisposition of an individual to evaluate some condition as favorable or unfavorable (Katz, 1963:253), while values help formulate attitudes as determinants of an individual's or a group's perception of an event, situation, or condition. A collection of values comprise a value system, and such a system affects perceptions. In this sense, values are associated with attitudes, as are particular events, conditions, or situations. A recognition of this relationship is important in the context of this study of police management. The specific activities, decisions, and policies of managers may affect attitudes which may ultimately affect satisfaction and morale, but these

organizational variables may not be the sole determinants of satisfaction and morale. Values may also play a key role in the formation of satisfaction and morale.[60]

The literature also suggests that there may, in fact, be two dimensions of satisfaction. Thus, satisfaction and dissatisfaction are not merely opposite ends of the same continuum. The "dual factor" theory of satisfaction was proposed by Herzberg and his associates (Herzberg, Mausner, Peterson and Capwell, 1957; Herzberg, Mausner, and Snyderman, 1959; and Herzberg, 1966) subsequent to empirical research of satisfaction among engineers and accountants. Herzberg concludes that satisfaction and dissatisfaction are two distinct elements; satisfaction is related to the work itself and the rewards (both extrinsic and intrinsic) that flow from that work. Dissatisfaction is associated with the individual's relationship to the context or environment in which the work is performed. House and Wigdor (1967) reviewed Herzberg's work and disputed the simplicity of the "dual factor" model. They indicated that individual differences may lead one person to derive satisfaction or dissatisfaction from certain job factors (either relating to the work itself or the environment), while another person may not be so affected by such factors.

The important point here is that job satisfaction is a complex phenomenon and is not always defined carefully in research studies or in analyses of management practices. These difficulties in conceptualizing and interpreting satisfaction should be kept in mind in any review of research studies addressing this subject.

There are two streams of inquiry in the literature concerning job satisfaction. The first seeks to determine relationships between satisfaction and performance while the second attempts to isolate and analyze managerial and organizational factors associated with satisfaction. These two streams of inquiry provide a foundation for analysis of reviewed research studies, both in the police and in the non-police samples.

The Relationship of Job Satisfaction to Performance. Despite the many attempts to instill greater job satisfaction for employees in many environmental settings, research has not substantiated the relationship between improved satisfaction and performance. Researchers and scholars alike have initiated many studies where satisfaction and morale are treated as ends in themselves. Several organizational and managerial variables are analyzed

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[60]This section of this chapter will not attempt to analyze the effects of individual or group values on satisfaction or morale. The subject of police values is examined in an earlier section of this chapter entitled: The Individual in the Police Organization.

in such studies to ascertain what conditions appear to produce greater satisfaction. This is especially true in law enforcement. Satisfaction is invariably conceptualized as a desired state of affairs in and of itself with little consideration of how such satisfaction or dissatisfaction will affect performance. This was true for this research study--no studies in the police sample linking satisfaction to performance or productivity were identified.

The general social science literature contains research studies demonstrating that high levels of job satisfaction may not produce correspondingly high levels of performance. Kahn (1963) investigated the linkage between satisfaction and performance and found that non-productive workers could be quite happy in their job, while high performing workers may actually exhibit a strong dislike for their work. Kahn (1963) did find that group pride and loyalty and hence morale did show some relationship to performance, but this effect did not hold when considering individual performance.

If satisfaction alone does not produce improved performance, what factors do produce such desired performance? The literature indicates that there may be a combination of factors which either promote or inhibit performance. First, individual differences in motivation and aspiration play an important role in influencing performance (Morse, 1953). Satisfaction measures should consider these individual traits; they may be more critical than satisfaction in affecting performance.

Further, individual differences in age and seniority affect individual satisfaction. Studies in the police sample for this current project are conflicting as to the effects of seniority on satisfaction. One study (Griffen, Dunbar, and McGill, 1978) indicates that older officers tend to be more satisfied with their jobs. Another study (Macfarlane and Crosby, 1976) observed that seniority has a positive effect on satisfaction with organizational rules and regulations and disciplinary procedures. Interestingly, a study by Slovak (1978) results in conflicting findings. Slovak found that seniority was not a correlate of satisfaction and that organization and management characteristics seemed to play a more critical role in influencing satisfaction. The discrepancy in findings may be due to the individual police agencies analyzed or to varying levels of cynicism among police officers. Regoli, Poole, and Hewitt (1979) controlled for seniority and education and found that cynicism had a negative effect on satisfaction.

Research in the police setting has also demonstrated that the education level of police officers is not related to satisfaction (Weiner, 1976; Griffen, Dunbar, and McGill, 1978; Hudzik, 1978; Slovak, 1978). This is an interesting finding considering that education is positively related to cynicism (Niederhoffer, 1967) and cynicism, in turn, negatively related to satisfaction. This suggests that cynicism may, in fact, be the predominant individual factor influencing satisfaction.

Individual values, needs, and aspirations thus all appear to affect satisfaction. How do these factors interrelate with organizational and managerial conditions having a bearing on satisfaction? This question is explored below.

Organizational and Managerial Factors Influencing Individual Satisfaction. A management and organization system which permits a certain degree of job fulfillment is more likely to generate greater feelings of satisfaction among employees than a system which does not permit such individual need actualization. Needs, of course, will vary by individual as shown initially by Maslow (1954) and examined further by Alderfer (1967b).

Variablility of tasks, formalization, organization structure, and supervision methods have all been associated by researchers with satisfaction. The subject of variability of tasks relates to the job itself. Alderfer (1967b) and Dewar and Werbel (1979) found that a greater variability in task structure was positively associated with satisfaction. Further, formalization (a structuring of job tasks and institution of increased rules and regulations) tends to be associated negatively with satisfaction (Aiken and Hage, 1966; Dewar and Werbel, 1979). In the police sample, Wagoner (1976) and Jermier and Berkes (1979) reached similar findings showing that variability of tasks was positively associated with satisfaction (Jermier and Berkes, 1979), and formalization of work activities was negatively associated with satisfaction (Wagoner, 1976). The study by Wagoner and a study of team policing (Schwartz and Clarren, 1977) also suggest that less specialization among police duties (perhaps similar to task variability) is positively associated with satisfaction.

The non-police literature contains several analyses of the relationship between organization structure and individual satisfaction. Numerous investigations of the linkage between both hierarchical structures and centralization of authority have been undertaken. These studies show that hierarchical organizational structures are not likely to be conducive to satisfaction when task variability and autonomy are high (Engel, 1970; Carpenter, 1971; Ivancevich and Donnelly, 1975). Centralization of authority is apt to produce increased alienation due to the fact that individuals perceive the opportunity for individual achievement in such structures to be relatively low (Aiken and Hage, 1966). This finding has been shown to have relevance to policing in a study of team policing where decentralization of authority was positively associated with greater officer satisfaction (Schwartz and Clarren, 1977).

Supervision styles also play a key role in affecting satisfaction. Supervisory styles exhibiting consideration and initiating structures (styles accommodating respectively greater consideration of employees' needs and greater employee input in decision making) have been found to be positively associated with satisfaction in both the police literature (Aldag and Brief, 1978; Jermier and Berkes, 1979) and the non-police literature (Likert, 1961;

Lowin, Hrapchak and Kavanagh, 1969; House, Filley, and Kerr, 1971; Misumi and Seki, 1974). Task variability plays a key role here, however, as individuals with greater job autonomy and a more variable task structure are more likely to be satisfied with supervisory styles that accentuate an initiating structure rather than a supportive or consideration structure.

Supervisory communication also has been shown to be related positively to satisfaction in the non-police sample (Assael, 1979; Klein, Kraut, and Wolfson, 1971; Alderfer, Kaplan, and Smith, 1974). More specificially, Hill and French (1967) have shown that supervisory and management styles that are "collegial" promote greater satisfaction among employees.

In the aggregate, these studies appear to support the conclusion that management systems that encourage greater fulfillment of individual needs with less job structure promote greater satisfaction. This relationship, however, is affected by the variability of tasks and individual autonomy. This conclusion is more applicable for organizations exhibiting a variable task structure and considerable individual autonomy. The police organization by and large exhibits such working conditions. Therefore, there is a need for police managers to institute mechanisms to assure increased realization of individual needs.

These relationships, including those discussed earlier concerning individual values and attitudes are diagrammed in Figure 22. Note that satisfaction is not correlated with performance in this graphic. Available, sampled research does not substantiate this correlation.

It should be noted that although these relationships are well founded in research, there is a need to further investigate multicollinearity between these variables and distinguish between relative effects of these individual and organizational variables on satisfaction. Such research is not presently available, at least as sampled for this study, in the police environment.

Figure 22

RELATIONSHIP OF INDIVIDUAL AND
ORGANIZATION FACTORS TO JOB SATISFACTION

Individual Variables

- Seniority ——————————— +
- Education ——————————— 0
- Cynicism ——————————— −

Organization Structure Variables

- Variability of Tasks ——————— +
- Formalization ——————————— −
- Hierarchical Levels ——————— −
- Concentration of Authority ——— −

Supervisory/Management Variables

- Style of Supervision:  Consideration   +
  and Initiating Structures
- Communication Patterns ——————— +

Individual

Satisfaction

Individual

Performance

288
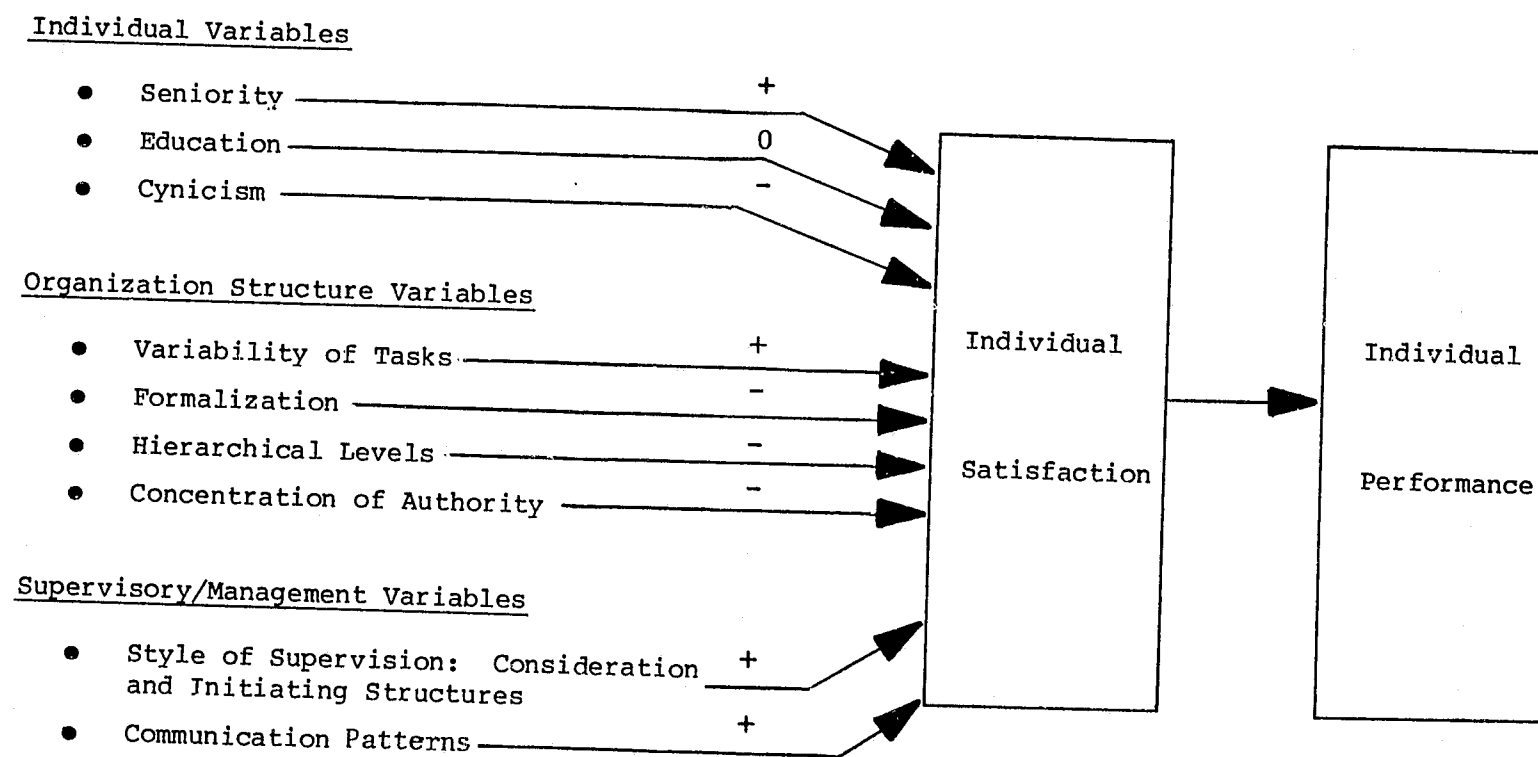
## Summary and Conclusion

The role of the informal organization in the police organization has been analyzed in this chapter through a synthesis of research examining individual police officer personality and values, the formal and informal work group in the organization, and employee satisfaction. This analysis has demonstrated that there are considerable knowledge voids in the police literature concerning these subjects. Further, the sampled police literature presents many conflicting conclusions regarding individual and group attitudes and values. This literature, moreover, contains many studies with qualitative, exploratory designs which do not yield generalizable findings which can be integrated into a knowledge base.

A review of sampled police literature indicates that research in law enforcement has focused on two variables in this conceptual cluster: (1) individual police officer values, attitudes, and role perceptions (including cynicism), and (2) individual satisfaction. A total of 83 per cent of the sampled police literature addressed these topics, whereas there were a significantly smaller number of sampled studies which researched individual commitment, or group interaction. The non-police literature yielded considerable information on each of these latter subjects; this information added to the knowledge base concerning the effects of management practices on individual commitment and group interaction.

The police personality and its inherent value structure has been researched extensively. In fact, this was one of the more voluminous bodies of literature reviewed for this synthesis of police management research. The popularity of this subject appears to be derived from a concentrated focus on the role and work tasks of the individual officer originating in the mid 1960's and continuing to this day. One essential theme of this literature is whether or not there actually is a distinct police personality, or whether police values are formed as a result of socialization into the police organization.

One of the most widely publicized subjects of interest has been cynicism among police officers. There is a debate in the literature concerning methods of measuring cynicism, and regarding the reason for police officers becoming cynical. Research studies have identified three different techniques of measuring cynicism: one suggests that there are three dimensions of cynicism, another suggests that there are five such dimensions, and a third does not distinguish among separate dimensions of cynicism. The literature also depicts a conflict over the relationships between seniority, education, perceived professionalism, and cynicism. Some have asserted that cynicism levels increase as these variables increase. Other researchers have concluded that such relationships do not exist. One school of inquiry suggests that seniority is the strongest determinant of cynicism.

Such conflicts concerning individual police officer values extend to research studies of authoritarianism and dogmatism among police officers. There is little consensus as to how these personality traits should be measured and how they are developed. Concerning dogmatism, certain researchers assert that police officers have differing personalities than the general citizenry and that these traits are derived from occupational socialization. Some assert, however, that police officers are no different than others in the culture from which they are recruited. These researchers suggest that the police culture is developed from selective recruitment practices. The research literature does not reconcile these differences, although there is reason to believe that both socialization and individual personality attributes help foster police value systems.

The subject of organizational commitment is addressed in both the police and the non-police literature, although there was more information generated from the management and social science literature than from the police discipline. The sampled literature indicates that seniority and organizational achievement both affect commitment. At early stages of an individual's career, group solidarity and cohesiveness are prime determinants of commitment. As seniority increases, hierarchical rank and professional identity become stronger determinants of commitment. Professional commitment takes on an even stronger role for individuals who have worked for two or more organizations. Supervision also affects commitment levels: participatory supervisory styles tend to engender enhanced commitment by employees.

The sampled literature on the formal and informal group was divided into two topical areas. The first addressed the role and impact of the employee organization. The second examined work group interaction. Sampled research literature on police employee organizations was largely qualitative and suggests reasons for the increase in police unionism, as well as diagnosing the relationship between union interests and management interests.

A considerable body of literature cluster in the management and social science disciplines researched the effect of management and organizational variables on work group interaction. Research studies have demonstrated that management systems which encourage work group interaction result in improved organizational performance. This literature acknowledges that there are two sets of work groups: the reference group which consists of individuals from various work units and exhibits interaction not necessarily structured by work relations, and the instrumental group composed of employees in formal groups where interactions are specified by work rules. Hierarchical organization structures tend to facilitate management linkage of instrumental groups, although perhaps not promoting group interaction among reference groups. Concentration of authority appears to discourage group interaction, while training (largely in the form of organization development) appears to foster improved intergroup integration.

The extensive research literature focusing on individual satisfaction does not demonstrate that satisfaction is related to performance. On the contrary, certain research studies suggest that dissatisfied workers may actually be better performers, while there is reason to believe that workers can be perfectly happy and non-productive. Other research has indicated that certain organizational/management factors negatively affect satisfaction (e.g., formalization/written rules, hierarchical levels, concentration of authority), while others (variability of tasks, feedback from management, and participatory supervisory styles) are positively associated with satisfaction.

Research in the police field indicates that education is not related to satisfaction while seniority is positively related with this variable and cynicism is negatively correlated. Education, however, is negatively related to cynicism. The inference here is that increased education will be associated with increased cynicism. Thus, cynicism may be a key correlate of satisfaction. Educated police officers do not show any particular degree of satisfaction. Cynical and educated officers, however, are more likely to be dissatisfied.

This review of sampled literature highlights many needed areas for further research. Among the suggested topics for research are:

- There is a need for further research to assess the relationships between police values and beliefs and performance. Sampled police research studies portray several police personality traits. There has been little or no effort, however, to correlate these traits with performance. Such research should also analyze the relative influence of background values and norms, as well as police socialization in its assessment of the relationship between police personality traits and performance.

- There is a need to consider further the influence of jurisdictional variables on police personality attributes. The sampled research literature indicates that personality traits (e.g., cynicism, authoritarianism, dogmatism) may vary across jurisdictions and that organizational environment may perhaps be a critical determinant of the noted variance in measurement of many personality traits.

- The subject of organizational commitment in policing should be researched further to provide greater knowledge as to the relative effects of group solidarity, seniority, professional identity, and rank on commitment. The sampled management literature

indicates that these factors exert altering degrees of influence in various career stages. These findings should be confirmed in policing.

- Additional empirical evidence of the role and impact of police employee organizations is needed. Existing sampled research studies are primarily descriptive and by and large do not contribute to a knowledge base on employee organizations. Such research should consider the influence of police management practices on union formation, development, and its role in bargaining processes. This or other additional research should also consider the impact of police unions on individual performance and organizational effectiveness.

- There is a need to explore further the effect of police management practices on both formal and informal work group interaction.

- Satisfaction levels of police officers should be conceptualized in further research not only as outcome measures, but also as determinants of individual performance and organizational effectiveness.

## VII. ORGANIZATIONAL ACHIEVEMENT

### Introduction

The final conceptual cluster examines management practices impacting organizational ability to achieve desired objectives. This synthesis of empirical studies examining organizational achievement completes the full cycle of analysis of research addressing the management of organizational inputs, structural variations, managerial coordination and control mechanisms, informal organizational structures, and attainment and measurement of organizational outputs.

This chapter will not only focus on the state of the art of measurement of organizational achievement, but will also consider variations in management practices which appear to promote organizational achievement. This focus will seek to answer two critical questions of importance to all managers: what organizational and administrative practices, policies, or procedures seem to be associated with organizational achievement, and why do these efforts appear to produce desirable results?

Much of the reviewed literature in both the police and the non-police samples considers variations in definition and measurement of certain variables included in this cluster. In some instances this focus on definitions is due to lack of uniformity in conceptualizing and defining certain variables such as organizational effectiveness and individual performance. In addition, there is considerable evidence of difficulties in obtaining accurate measures of these and other variables once standardized operational definitions are selected. Oftentimes, especially in police agencies, these difficulties spring from deficiencies in data collection and reporting. This chapter will consider the consequences of these difficulties to the state of the art.

Organizational achievement, as defined in this chapter, has four elements: effectiveness, innovation and change, public support, and individual performance. These elements address pertinent, desirable outcomes for all organizations. Effectiveness, although defined differently in various organizational settings, is generally a measure of the degree to which the organization achieves its objectives, whether they are producing and selling more products, providing better services to clients, or responding to changes induced by the organization's environment.

Innovation in some respects is dissimilar to the other variables included in this cluster. This variable does not refer to the measurement of products produced or services delivered, both of which can be considered ongoing organizational functions. Rather, this variable addresses the achievement of specially developed objectives to modify the organization and

management system, including its structure, work activities and inter-personal relationships, and employee attitudes. This chapter will explore reasons for both successful and unsuccessful adoption of innovations and change.

Public perceptions of the organization, its services or products, or its members are important in any organizational setting. Effective executives devise systems to monitor public perception, whether in the form of feedback systems to evaluate client perceptions of services rendered, or products distributed, or in the form of special surveys designed to solicit client perceptions of products or services, or to ascertain opinions regarding the organizational mission. This chapter analyzes research examining the management processes of obtaining such perceptions, and assesses relationships between certain managerial practices and client perceptions.

This chapter also reviews a body of research literature analyzing individual performance: its measurement and correlates. This variable, like organizational effectiveness, has been operationalized many different ways in research studies. Moreover, research has examined the relationship between individual traits, as well as organizational variables and performance. These various analyses are included in this review in deducing a synthesis of knowledge concerning individual performance.

## Descriptive Findings

A thorough examination of journals, books, monographs, and grant reports identified 98 studies from police science literature and an additional 46 studies from the general management field providing information on organizational achievement. Each of these studies were carefully reviewed and coded in order to develop a knowledge base on the state of the art on organizational achievement.

Presented in this first section of the chapter are the descriptive findings which pertain to organizational achievement. Included is a discussion of the number of studies reviewed by specific variable, the type of research designs utilized, the level of analysis employed, and a presentation of the general descriptive findings. The second section of the chapter presents inferential findings regarding knowledge base strengths and weaknesses for the literature reviewed for this cluster.

## Number of Studies by Specific Variables

The conceptual framework for this cluster included four unique variables: (1) Organizational Effectiveness; (2) Organizational Change; (3) Public Support/Legitimacy; and (4) Individual Performance. Definitions for each of these variables may be found in Chapter I: Detailed Project

Methodology. The studies reviewed for this cluster did not produce divergent treatments of any of these variables. Therefore, no further breakdown of variables into sub-variables was necessary.

Table 24 presents the number of studies reviewed for each variable in this cluster. Some of the studies reviewed examined more than one variable in this cluster. Therefore, the totals for this table will be more than the total number of studies reviewed. This table reveals an equal sampling of studies in the non-police literature, for all variables with the exception of public support/legitimacy. The police sample includes a substantial number of studies on individual performance, public support/legitimacy, and organizational effectiveness. Consequently, it may be possible to generate conclusive findings for these variables. There was only a small sampling of studies for the variable organizational change.

Table 24

NUMBER OF STUDIES REVIEWED BY SPECIFIC VARIABLE

(Conceptual Cluster VI)

| Variable Name | Name | Police | Non-Police |
|---|---|---|---|
| 37 | Organizational Effectiveness | 22 | 15 |
| 38 | Organizational Change | 7 | 15 |
| 39 | Public Support/Legitimacy | 33 | 5 |
| 40 | Individual Performance | 43 | 15 |

Several alternative definitions of effectiveness have been used by researchers in the police science field, as well as other disciplines. The sampled research for this study by and large utilizes traditional measures of effectiveness (e.g., crime rates, arrests, clearances), although certain reviewed studies suggest optimal means of measuring effectiveness. It seems that the concepts of change agentry and innovation have only recently begun to appear in the police literature and, as yet, have not been subjected to empirical examination. As a result, it will be difficult to deduce a knowledge base on organizational change for the police sample. A more extensive sampling of literature was derived from the management and social science disciplines.

The substantial body of literature examining police support/legitimacy by and large relies on surveys of citizen attitudes toward police service.

Certain of these studies explore the viability of such surveys as measures of police effectiveness.

The subject of individual performance was extensively analyzed in the police literature. Many researchers (Marsh, 1962; Colarelli and Siegel, 1964; Levy, 1967, 1973; Hogan, 1971; Furcon, Froemel, Franczak, and Baehr, 1971; Snibbe, Azen, Montgomery, and Marsh, 1973; Leiren, 1973; Furcon, Froemel, and Baehr, 1973; Landy, 1976; Rhead, Abrams, Trosman, and Margolis, 1976) have examined the relationship between selection standards (e.g., background investigation, testing, interviewing) and future performance. These authors have suggested that certain selection criteria can successfully predict the officer's later performance. Others (Bozza, 1973; Cascio, 1977; Barry, 1978; Roberg, 1978) assessed the relationship between education and officer performance.

## Research Designs

Each of the 144 studies located for this conceptual cluster were reviewed to determine the type of research design utilized. Studies were classified as either Exploratory, Case Study, Quasi-Experimental, or Experimental. Members of the research team also ascertained whether the variables included in sampled studies were treated as independent or dependent variables.

Research Design Types. The results of this analysis appear in Table 25 and 26 respectively. As shown in Table 25, virtually all of the police studies (98%) were either exploratory or case studies. This pattern has remained consistent throughout the entire sample of police literature reviewed for this project. The non-police sample, however, contains a relatively significant amount (24%) of research which utilized either a quasi-experimental or an experimental design.

Table 25

TYPES OF DESIGNS FOR SAMPLED STUDIES

| Types of Designs | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Exploratory | 47 | 48 | 29 | 63 |
| ● Case Study | 49 | 50 | 6 | 13 |
| ● Quasi-Experimental | 1 | 1 | 2 | 4 |
| ● Experimental | 1 | 1 | 9 | 20 |
| | 98 | 100% | 46 | 100% |

It is suprising that more police science researchers have not attempted to employ sophisticated research designs when conducting empirical studies. It would have been interesting, for example, to examine the effect certain managerial actions have on officer performance or organizational achievement using quasi-experimental or experimental designs. Such studies would promote the development of causal inferences and sound policy decisions by public administrators. There are several apparent reasons why police researchers have not used these more sophisticated designs. These reasons include, but are not limited to: (1) ethical considerations, that is, withholding treatment from one group, (2) difficulty implementing and maintaining control over the experiment, (3) problems obtaining administrative commitment, and (4) legal constraints. Another important factor pertains to the measurement of the variables. As will be discussed later in this chapter, there is no uniform consensus among police researchers in how to measure effectiveness and performance. As a result, the majority of the studies are either exploratory or case study in design. Additionally, effectiveness and performance are conceptualized and measured quite differently in the police and non-police literature.

Treatment of Variables in Research Designs. To provide further insight into the topic of organizational achievement, the sampled studies were reviewed to determine if the variables were treated as independent or dependent. Table 26 presents the results of this analysis. It should be noted that the total number of independent and dependent variables for both police and non-police literature equals more than the total number of studies reviewed as several researchers examined more than one of the variables in this cluster.

Table 26

TREATMENT OF VARIABLES IN RESEARCH DESIGNS

| Variable Number | Name | Police | | Non-Police | |
|---|---|---|---|---|---|
| | | Independent | Dependent | Independent | Dependent |
| 37 | Organizational Effectiveness | 4 | 18 | 0 | 15 |
| 38 | Organizational Change | 3 | 4 | 2 | 13 |
| 39 | Public Support/ Legitimacy | 0 | 33 | 1 | 4 |
| 40 | Individual Performance | 4 | 39 | 0 | 15 |

These data reveal that almost all of the variables were treated as dependent or outcome measures. Consequently, knowledge concerning the topics in this cluster will focus on the effect of management or organizational practices on effectiveness, public support, or individual performance. This pattern of variable treatment was expected since these variables address organizational outputs rather than inputs or internal processes.

## Methods of Analysis

An important step in analyzing the sampled research studies was to determine the method of an analysis used. The research team reviewed and coded each study as using either qualitative, univariate, bivariate, or multivariate modes of analysis.

Table 27 presents the results of this analysis. These data reveal a difference between the police and non-police samples. Ninety-six percent of the non-police literature sampled for this conceptual cluster used either bivariate or multivariate analytical techniques, while 72 percent of the police sample used these same forms of analysis.

Table 27

METHODS OF ANALYSIS FOR SELECTED STUDIES

| Methods of Analysis | Police | | Non-Police | |
|---|---|---|---|---|
| | N | % | N | % |
| ● Qualitative | 10 | 10 | 0 | 0 |
| ● Univariate | 18 | 18 | 2 | 4 |
| ● Bivariate | 33 | 34 | 22 | 48 |
| ● Multivariate | 37 | 38 | 22 | 48 |
| | 98 | 100% | 46 | 100% |

Of the police studies which utilized bivariate or multivariate statistical analyses, the majority examined public support/legitimacy and individual performance. Many of the researchers who addressed the subject of public support conducted attitudinal surveys; 24 of the 33 studies on this topic used bivariate or multivariate analysis. Similarly, 31 of the 43 studies which examined performance used such analytical techniques. Thus, 55 of the 70 sampled police studies which employed either bivariate or multivariate techniques (78%) did so in researching either public

support/legitimacy or individual performance. The non-police studies which applied either bivariate or multivariate techniques were evenly distributed across the four variables in this cluster.

## Presentation of Descriptive Findings Produced by Sampled Research Studies

The last step in the descriptive analysis was research of patterns of relationships between variables. These relationships provide insight into the state of the art of organizational effectiveness. The descriptive findings are presented in Exhibit F entitled "Synthesis of Descriptive Findings: Organizational Achievement." These findings are descriptive in nature and do not necessarily produce a knowledge base and also may not be generalizable. A discussion of knowledge base strengths and weaknesses is presented in a subsequent section of this chapter entitled "Inferential Findings."

Exhibit F

SYNTHESIS OF DESCRIPTIVE FINDINGS:
ORGANIZATIONAL ACHIEVEMENT

| Police Studies | Non-Police Studies |
|---|---|
| 37. Organizational Effectiveness | 37. Organizational Effectiveness |

**Police Studies**

37. Organizational Effectiveness

- Finding that amount of money expended for police services is positively related to organizational effectiveness (reduction in crime rate).

- Finding that more functionally specialized police departments may be less effective than non-specialized agencies. Further, departmental specialization appears to be inversely related to effectiveness.

- One study suggests that both organizational size and size of clientele are negatively related to organizational effectiveness. Another study found no relationship between organizational size and effectiveness.

- Indication that increased boundary spanning activity between police and social service agencies does not significantly improve the organization's effectiveness.

**Non-Police Studies**

37. Organizational Effectiveness

- Finding that the more decentralized the organizational decision-making process is, the more effective the organization is.

- Finding that organizational size is conversely related to effectiveness (productivity). Another study showed that size of clientele is inversely related to effectiveness.

- The literature indicates that hierarchical structures are negatively related to organizational effectiveness.

- Indication that departmental and functional specialization, education, professionalism, participation in committees, and smaller administrative staff size are positively associated with effectiveness.

- The number of organizational objectives was found to have no relationship to the effectiveness of an MBO program; although, setting clear goals and objectives positively affected the effectiveness of the MBO program.

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| Police Studies | Non-Police Studies |
|---|---|
| • The literature suggests that technology, professionalism, decentralization in decision-making, and organizational change positively affect effectiveness. | • Finding that management styles encouraging greater work group fosters increased effectiveness. |
| • It appears that effectiveness (higher arrest rates) is positively related to citizens' evaluations of police. | • The number of organizational objectives was found to have no relationship to the effectiveness of an MBO program; although, setting clear goals and objectives positively affected the effectiveness of the MBO program. |
| • One study found that unionization was negatively related to effectiveness. | |
| | • Suggestion that there is a positive relationship between perception of environmental uncertainty and organizational change with a subsequent positive impact on effectiveness. |

38. Organizational Change

- Indication that innovation in the police department enhances organizational effectiveness.

- Decentralization (in the form of team policing) was not found to affect the department's orientation toward change.

- Indication that increased influence from the environment is negatively associated with the organization change.

38. Organizational Change

- Finding that larger organizations tend to be more innovative.

- Environmental relations including boundary spanning activity, degrees of economic autonomy, and political culture positively influence organizational change.

- Evidence of a conflict in the literature concerning the relationship of functional specialization to innovation.

Exhibit F (continued)

| Police Studies | Non-Police Studies |
|---|---|
| ● It appears that organizational change does not affect the officer's level of satisfaction. | ● Two studies found that formalization has no effect on adoption of innovations while another study found a negative relationship between these variables. |
| ● The literature indicates that hierarchical structure negatively impacts organizational change. | ● The literature suggests that variability of tasks and professionalism positively influence organizational change. |
| | ● Hierarchical levels, administrative staff size, and decentralization of decision-making do not appear to affect organization change. |

39. Public Support/Legitimacy

● Finding that more highly professional police jurisdictions are viewed less positively from the public's perspective than their less professional counterparts.

● Finding that the nature of police-citizen interactions influences citizen perceptions and evaluation of the police.

● Two studies found that increased levels of police training did not increase or decrease citizen evaluation of the police. A third study reported that training had a positive effect on citizens' perceptions of police officers.

39. Public Support/Legitimacy

● Finding that in larger organizations, citizens' perceptions of quality of service were higher.

● Indication that larger administrative staff units are negatively associated with public perception of quality of service.

● Public perception was found to positively influence employee satisfaction.

Police Studies | Non-Police Studies

- Indication that organizational size, the number of police jurisdictions in the metropolitan area, and educational level of the officer did not affect citizens' perceptions of police. One study found that an increase in the size of the police department accompanied by a corresponding increase in expenditures, resulted in higher evaluations of the police by citizens in communities under 20,000.

- Normative incentives and decentralized decision-making structures appear to positively influence citizen perceptions of the police.

- Indication that the more functionally specialized the department is, the less satisfied citizens are with the department.

- Several researchers found that the public has a positive image of the police, while other studies report the public is ambivalent toward police and law enforcement. Another author found that perceptions of police vary between and within neighborhoods.

40. Individual Performance

- Findings strongly indicate that the existence of selection standards (e.g., test

40. Individual Performance

- Finding that when supervisors were supportive, performance and productivity increase.

| Police Studies | Non-Police Studies |
|---|---|
| scores, probationary evaluation, background investigations, structured interviews) can predict future performance. | • A highly bureaucratic structure appears to have a negative impact on performance. |
| • Research findings suggest a positive relationship between police education levels and performance. | • Indication that group cohesion and satisfaction are related to higher levels of performance. |
| • Finding that officers who are less dogmatic and more open in their belief systems are better job performers. | • Indication that participativeness is positively related to the total amount of control and effectiveness measures. |
| • Two studies indicated that training did not affect future performance, while another study reported a negative relationship between training and performance. | • It appears that decision-making styles may inhibit productivity. Another study indicated that centralization of decision-making positively affected performance. |
| • Indication that formalization of rules and regulations is not related to individual performance. | • Research indicates that the more challenging the job and the more involved employees are with their jobs, the greater their performances were. |
| • Finding that group cohesion (group peer pressure) negatively affects performance (as measured from the perspective of conformity to rules and procedures). | • It appears that a change in technology does not affect performance (absenteeism). |
| | • Research depicts mixed findings concerning the relationship between formalization/ written rules and performance. One study found that increasing formalism is related to lower performance, while another found no relationship between these variables. |

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## Inferential Findings

As with previous conceptual clusters, all descriptive findings were scrutinized to develop a knowledge base regarding organizational achievement. The results of this examination constitute the second analytical component of this study--the inferential analysis. Both knowledge base strengths and weaknesses were analyzed in this process; the policy relevance of available knowledge gleaned from identified empirical studies was considered in this review.

The focus of this analysis was a deduction of knowledge from cited and reviewed studies incorporating the variables in this cluster entitled "Organizational Achievement." Certain reviewed studies presented information and not knowledge and thus did not necessarily contribute to knowledge base strengths. These studies were perused, nevertheless, to ascertain contributions to the state of the art, particularly concerning knowledge base weaknesses. In this sense, a synthesis of methodological difficulties could be incorporated in the inferential analysis.

The findings for this conceptual cluster are presented in order of the four variables incorporated in this conceptual cluster. The four variables are discussed in four separate sections entitled:

1. Police Organizational Effectiveness: Correlates and Measures.

2. Innovation and Change in the Police Organization.

3. Public Support and Perceived Legitimacy of the Police Function.

4. Police Management, Administration, and Individual Performance.

These four subject areas comprise unique elements of the output dimension of the police organization and management system. An analysis of knowledge concerning these subjects thus completes the full cycle of assessing the state of the art of methods of managing inputs to the police organization, managing internal management processes in place in contemporary police agencies, and delivering and assessing outputs produced from the police organization. This chapter analyzes current practices of measuring achievement of desired organizational objectives and investigates relationships between outputs and management and administrative practices and polices.

Police Organizational Effectiveness:   Correlates and Measures

The paramount finding regarding research addressing organizational effectiveness in policing is that the state of the art is not well developed. The literature reveals difficulties in conceptualizing appropriate measures of effectiveness and indicates that problems in definition stem primarily from clouded interpretations of police organization outputs.

Historically, the primary objectives of the police have been considered to be crime prevention and criminal apprehension. Consequently, police administrators, government officials, and students of police administration have evaluated the police, utilizing measures of reported crime and arrests.[61]   The inclusion of such measures in the Federal Bureau of Investigation's Uniform Crime Reports encourages the reliance on these measures by police agencies and government officials.   Police agencies structure their reporting systems to capture information for crime incident and arrest tabulation.   Rarely do they organize data gathering and records functions to collect and prepare data on alternative measures of effectiveness.   In short, the only standardized and readily available measures of effectiveness in policing are those assessing numbers of crimes reported, and number and percentages of arrests made, cases cleared (solved), or citations issued.

Several research studies have shown that this reliance on such a limited measure of organizational achievement prohibits accurate evaluations of the effectiveness of the police function for three reasons:   (1) the adherence to such traditional measures of crime control is based on the inaccurate conception that crime control efforts constitute a majority of police activity, (2) present methods of reporting crime and arrests do not yield a complete assessment of criminal activity, nor do they reflect the entire spectrum of police methods of resolving situations where a law is violated or the potential for such violation is evident, (3) the ability of the police to actually control crime is limited due to socioeconomic factors and the availability of information concerning crime.   Each of these reasons merits discussion.

Research has shown that the average police officer, in actuality, spends well below half of his/her duty hours on crime-related activity (Black and Reiss, 1967; Bercal, 1970; Reiss, 1971) and that services to individuals constitute a considerable portion of the police workload (Cumming, Cumming,

[61]Crime, as used here, refers in general to all legally prohibited acts ranging from crime against property, crime against the person, to violations of traffic law, and violations of other miscellaneous laws designed to safeguard the public safety (e.g., disorderly conduct, vagrancy).

and Edell, 1965).   This realization has led scholars in law enforcement to conclude that only a small portion of the police function is devoted to law enforcement (Skolnick, 1966; Wilson, 1968; Bittner, 1970; Goldstein, 1978) and that there are two other fundamental objectives of policing:   order maintenance and provision of government services.   The precise impact of providing these services will not be elaborated upon here, except to indicate that effectiveness measures of the police function do not usually include measures of police effectiveness in carrying out order maintenance activities and delivering government services.[62]   Measures of effectiveness in delivering these services are usually produced only when a specific initiative to control some situation deemed to be a problem by the community (e.g., public drunkenness) results in police resources being focused on the given problem.

Secondly, the literature demonstrates that official measures of crime control activity (primarily the Uniform Crime Reports) are less than satisfactory measures of effectiveness due to under-reporting of actual crime activity (Stinchcombe, 1963; Wolfang, 1963; Biderman, 1966, 1967; McPheeters and Strong, 1973; Meyer and Taylor, 1975) and the potential of misreporting of crimes by the police for budgetary or political purposes (Siedman and Couzens, 1974).   Meyer and Taylor (1975), moreover, have shown that police officers are likely to report different types of crime than are citizens.   Thus, police logs of criminal activity now kept in many police agencies may also be questionable.   These findings suggest that there is reason to believe that the "input" element of police organizations is not well defined; the official measures of police inputs may not, in some cases, reflect the actual volume of inputs.   Consequently, traditional measures of effectiveness based on calculations of arrests or clearances divided by crimes reported may be inaccurate measures of actual police performance.

A third difficulty with the use of reported crime rates, arrests, and clearances as measures of effectiveness is the limitation placed upon the police ability to actually control crime.   At an earlier point in this report it was shown that socioeconomic and community composition conditions ranging from income and education levels of citizens to community urbanization patterns, community employment characteristics, and housing conditions have a direct effect on crime rates.[63]   It has also been observed that crime rates are also caused by failure of other societal institutions such as inadequate education systems, poor recreational systems, ineffective political systems, inadequate welfare programs, and ineffectiveness of other municipal services.   Given these influences on crime rates, how equitable is it to

[62]A more complete discussion of the impact of providing these services on the police mission is included in Chapter III: Complexity of the Organizational Goal and Task Structure.

[63]The relationships of these environmental factors on crime are examined in Chapter II:   Environment and Organizational Autonomy.

evaluate police effectiveness by assessing reported crimes? Moreover, can comparisons of police agencies on crime rates alone be valid criteria for evaluating effectiveness? Certainly there is apt to be considerable variance across jurisdictions on many of the socioeconomic and governmental factors cited above, a variance which will likely affect the crime rate.

The police ability to control crime is also limited by the availability and reliability of information about crime incidents and offenders (Skogan and Antunes, 1979). This point is being made increasingly clear through studies of criminal investigations and suggests that the solving of crimes is often due to the provision of information to the police by witnesses and victims. This information frequently is provided at the scene by willing citizens; therefore, the police task in discovering such information is limited.[64] If this is the case, as is becoming more apparent, why should measures of police effectiveness be so tied to cases cleared and arrests made when the potential for achieving such outcomes is limited in the first place?

It is clear then that present measures of police effectiveness are less than adequate. Acknowledging this problem, certain researchers and scholars have begun to conceptualize alternative measures of police effectiveness. Ostrom (1971) has suggested five such measures: (1) response time, (2) victimization date, (3) citizen-reporting data, (4) property risk data, and (5) cost-effectiveness data. In a later paper, (Ostrom, 1973) this same author analyzes the variations in patterns of consumption of police services, suggesting that there are those services that are consumed primarily as separable benefits by an individual or a family unit, and there are those services which are consumed jointly by the community. Further, these services are delivered by either one police officer or a team of officers, or one police unit or groups of units (e.g., patrol, investigations, laboratory technicians). Ostrom goes on to say that measures of efficiency need to be incorporated in assessments of effectiveness due to the insufficiency of reported crime measures in deriving evaluations of police effectiveness. If efficiency measures are not developed, there is the ongoing potential for a police agency which is not recording many of its delivered services to appear to be effective when in actuality it may not be.

Votey and Phillips (1972), noting the lack of sophistication in measuring the relationships between inputs and outputs in policing, developed a production-function approach for evaluating police effectiveness. Their model considers the relationship between resources committed to crime control,

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[64] A detailed analysis of the effectiveness of police crime apprehension activities is beyond the scope of this project since this inquiry would focus on a police operational issue.

including personnel resources and technology, and derived outputs (defined as clearances by arrest). Votey and Phillips empirically tested their production function model for the crimes of auto theft, burglary, larceny, and robbery using crime data for cities over 2,500 population for the years 1952-1967. Based on these data, Votey and Phillips conclude that there has been a decline in police effectiveness and this decline is due, in large part, to decreasing expenditures for police services.

These and other developments in measuring police effectiveness provide well-conceived advances in the state of the art, but for the most part have not resulted in the abandonment of traditional effectiveness measurement methods in police research. The majority of studies reviewed for this project have relied on traditional measures such as crime rates, arrests, clearances, and more recently on citizen perceptions, and victimization patterns.[65] The state of the art, however, is not well developed, and there is an urgent need to adopt alternative effectiveness in research projects.

The National Institute of Justice has attempted to address this need through the Performance Measurement Program, a long-range program initiated in 1978 for developing performance measurement in criminal justice (see Zedlewski, 1979, for a description of this program). This program emphasized the need to re-conceptualize the entire police performance measurement problem with a concentrated focus on measurement fundamentals with a departure from current data collection and analysis methods. This program has resulted in advanced approaches to measuring performance (see, for example, Whitaker, Mastrofski, Ostrom, Parks, and Percy, 1980) but has not, as yet, produced empirically validated tests of these new methods of measurement.

The difficulties in measuring police effectiveness are raised here as caveats to inferential findings in numerous research studies in policing. Earlier chapters of this report have synthesized results of many investigations of relationships between organizational, managerial or administrative practices, and effectiveness. The measurement of the dependent variable in these relationships (effectiveness) has, however, been subjected to several operational treatments and, in some cases, relies on questionable data. Therefore, it is difficult to produce a conclusive listing of organizational and management practices contributing to police effectiveness.

The general management literature, unfortunately, is not tremendously helpful either. This literature also presents a multitude of effectiveness

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[65] Many researchers have relied on data collected from the National Crime Survey conducted by the U. S. Bureau of the Census in 1972 to measure citizen opinions concerning crime and law enforcement, as well as criminal victimization patterns.

measures ranging from organizational performance (subjected to different definitions according to the topic and environment of study), employee satisfaction and commitment, to organizational adaptation to environmentally induced changes. In short, there are a variety of approaches to measuring organizational effectiveness in this literature as well as in the police literature. Steers (1975:551) has addressed this wide variation in effectiveness measurement models and suggested that difficulties in conceptualizing and agreeing upon evaluation criteria presents difficulties in assessing the relative effectiveness of organizations. Steers (1975:551-555) defines and reviews eight common problems inherent in many approaches to measuring effectiveness across organizations:

- Construct validity--refers to identifying the domain of the relevant effectiveness criteria, and determining the extent to which effectiveness measures are similarly related or affected by external factors.

- Criterion stability--concerning the stability of effectiveness measures over time.

- Time perspective--there is a need to consider not only short-run considerations of effectiveness, but also long-range measurements of organizational stability and growth over time.

- Multiple criteria--numerous research studies consider multiple effectiveness criteria (e.g., production, employee satisfaction); however, there has been little attention given to evaluating the degree to which organizations maximize various effectiveness criteria at the same time.

- Precision measurement--many effectiveness models rely on less than precise measures of performance (e.g., measuring performance simply by assessing production, or measuring satisfaction by only assessing turnover and absenteeism).

- Generalizability--in some cases researchers do not carefully specify the relevance of an effectiveness measure taken from one organizational setting and applied to another environment; there is a need to determine the effects of functional specializations and environmental variations across organizational settings.

- Theoretical relevance--from the standpoint of model building or deducing cause and effect relationships, many effectiveness measurement systems do not accurately

consider the theoretical relevance or plausibility of such relationships.

- Level of analysis--refers to difficulties in generalizing from measures of individual behavior or attitudes to organizational behavior.

Given these difficulties in measurements of effectiveness, a number of correlates of organizational effectiveness have been identified throughout the course of this synthesis of management literature, from both the police field and from other disciplines. A summary review of these identified correlates is presented below in Table 28. These correlates have been analyzed in previous chapters of this report. Therefore, a detailed analysis of findings will not be presented here. This table includes variables which have been identified as positively and negatively related to effectiveness, as well as those variables that have been shown not to be related to effectiveness. Since certain studies conceptualized effectiveness as adaptation to the environment, and this measure is dissimilar to other effectiveness criteria, such correlates are distinctly identified in the table (with an asterisk). Only variables that were actually measured throughout reviewed research studies are reported here. This does not infer that other variables in the conceptual framework have no bearing on organizational effectiveness.

Although these relationships were derived from reviews of empirical research, this does not suggest that alternative studies not reviewed for this project would not posit other relationships between organizational and management factors and effectiveness. Certainly there is reason to explore the literature further to ascertain if alternative correlations have been suggested, as well as to continue empirical research to test the relationships indicated here.

Table 28

CORRELATES OF ORGANIZATIONAL EFFECTIVENESS

| Variables Positively Related to Effectiveness | Variables Negatively Related to Effectiveness | Variables Not Related to Effectiveness |
|---|---|---|
| ● Degrees of support from community | ● Organization size: members' objectives | ● Number of organizational objectives |
| ● Setting clear and concise organizational objectives | ● Organization size: clientele | ● Employee satisfaction |
| ● Functional specialization* | ● Hierarchical structure | |
| ● Departmental specialization* | ● Size of administrative support staff component | |
| ● Technology | ● Employee organization | |
| ● Skill structure, professionalism | | |
| ● Education levels | | |
| ● Committees* | | |
| ● Decentralization of decision-making | | |
| ● Work Group Integration | | |

* These variables were shown to be related to organizational adaptation to the environment, not necessarily to effectiveness in delivering services or selling products.

Innovation and Change in the Police Organization

Change and innovation in some respects are a different level of variable than the three other variables in this conceptual cluster. Arguably, change and innovation can be considered a process element of organizations: that is, a deliberate consequence of management actions designed to achieve some desired organizational output. In the police environment, change can be intentionally fostered to induce improvements in any of the other three variables in this cluster: effectiveness, public support, or individual performance.

Innovation and change, however, are often considered ends in themselves in the literature. Management theorists, researchers, and practitioners frequently have addressed this variable as an outcome and have endeavored to pinpoint management and administrative processes which can be correlated with change. This is particularly true in police organizations where there has been a conscious attempt to change organizational structure, management styles, and individual behavior to reach some desired state of improvement, usually conceptualized as either increased arrests or clearances, greater public support, or enhanced job satisfaction. This focus on innovation and change, as an end in itself, has promoted the inclusion of this variable in this conceptual cluster.

The police literature sampled for this study examines innovation and change from two perspectives: it considers what factors contribute to change, and explores the results of individual and organizational change. Perhaps one of the most ambitious undertakings to induce change in the police organization was undertaken by the Dallas Police Department in the early 1970's (Wycoff and Kelling, 1978). This program of organizational change included comprehensive efforts to upgrade police personnel, alter organizational systems, and foster new management and supervisory styles, roles, and responsibilities. The results of this project were, on one hand, disappointing. The only substantial change produced as a result of this program was an increase in the educational level in the department. No significant changes in behavior or attitudes were observed. The program was beneficial, however, in illuminating many of the difficulties in effecting large-scale change in police organizations. The report of this project is particularly useful in presenting experience-based difficulties in implementing change and reflecting upon experiences relative to the process of change.

This study of change and innovation in Dallas is the most recent, widely publicized change in policing. Earlier studies have been published by Wilson (1967), Dimieri (1974), and Schwartz and Clarren (1977). The study by Wilson (1967) incorporated an examination of changes in perceptions of first-line supervisors resulting from large scale organizational change in the Chicago Police Department over a five-year period (1960-1965). Wilson surveyed police sergeants at the onset of this period and again five years later. Wilson (1967:144) concluded that ". . . after four to five years of

reform, there was a substantial improvement in how well the sergeants thought the department was run but little or no improvement in their morale." Wilson (1967:148-149) surmised that this lack of improvement in morale, which occured despite substantial changes introduced during the five-year period, including pay raises, rapid promotions, and new equipment and buildings, was likely due to external factors beyond the police administrator's control. One such factor was police perceptions of lack of respect or feelings of hostility towards the police among citizens. Another critical deterrent to morale was the perception of political interference in internal personnel matters, particularly concerning duty assignments.

The studies by Dimieri (1974) and Schwartz and Clarren (1977) focus on more specific changes--modifications in operational configurations introduced through team policing programs. These studies provide further illustrations of the difficulties of introducing change in policing. In each of these reports, the managerial and organizational difficulties resulting from change are documented. Schwartz and Clarren (1977), for example, in discussing the failure to sustain changes in officer attitudes demonstrate that perceptions of managerial/administrative changes imposed from centralized headquarters affected police officer views of the team policing program. This observation again points to implementation problems in introducing change in police organizations.

The finding that perceptions of large-scale organization change and operational changes in methods of delivering services are affected by "outside" influences is supported by Duncan's (1972b) analysis of organizational climate in three police departments. Duncan first demonstrates that police perceptions of organizational climate (defined from 12 climate dimensions) are negatively associated with external environment influences. Duncan continues his analysis by showing that although many police officers perceived the need for change, they exhibited only a moderate degree of openness to change, were not likely to perceive high degrees of potential for change, and in many cases did not feel that they had ample opportunity to participate in change programs. Some of these negative perceptions toward change resulted from perceptions of lack of interest in improvement by administrators and, in some cases, from too many changes being imposed simultaneously with little results being shown.

Duncan's study suggests that there is a need on the part of administrators to manage change carefully. There seems to be a feeling among many police officers that changes are needed to respond to externally imposed pressures and that officers are searching for demonstrations of sincere commitment to positive change on the part of police managers. Perceptions of incompetence in the management of constantly changing programs only tends to foster resentment to change. This last observation coincides with the findings of Schwartz and Clarren (1977) and Wycoff and Kelling (1979) regarding negative attitudes toward change as fostered by management difficulties in managing the change process.

Duncan's assertions that police administrators need to improve their skills in managing change by first introducing a climate for change is supported by the works of Dimieri (1974) and Schwartz and Clarren (1977). In each of these studies, short-term job enrichment on the part of officers was found to be associated with greater individual autonomy, decentralized management structures, and team-oriented decision-making. These managerial actions appeared to produce a climate for change. However, difficulties in the change process tended to negate these positive results and generate hostility toward new programs.

Cohen's (1980) examination of leadership patterns in New York City yields another perspective on change. Cohen suggests that the New York City Police Department is undergoing organizational transformation from a tall, centralized, management structure to a structure exhibiting multilevel hierarchies (greater division of labor) and greater decentralization. This transformation has produced a reform-oriented leadership which is more innovative. Cohen correlates changes in New York City produced by shifts in organizational structure with a noted examination of organizational change in government finance centers by Blau (1974). Cohen's study also suggests that change in policing may be introduced, but that large-scale organizational change may be required to accommodate managerial changes.

Research in other disciplines supports many of the observations by police researchers. Examinations of environmental uncertainty (Lawrence and Lorsch, 1967; Duncan, 1972a; Negandhi and Reimann, 1973; Pennings, 1975) indicate that perceptions of environmental change often result in organization change, as well as the perceptions for needed changes (similar to Duncan's 1972 study of climate in police agencies). The literature also suggests that the use of "boundary spanners" (individuals specifically assigned to interact with other organizations) promotes innovation in organizations (Tushman, 1977). This is likely, given the fact that such boundary spanners can anticipate changes in the environment. Research in policing, however, has shown that such individuals may be more detrimental than conducive to innovation if such individuals are not integrated into the organization (Wycoff and Kelling, 1979:63).

The literature also provides evidence that larger organizations may be more able to implement innovations than smaller organizations (Payne and Mansfield, 1973; Baldridge and Burnham, 1975; Blau and McKinley, 1979). Such research also suggests that variability in task structure is positively associated with potential for innovation (Baldridge and Burnham, 1975) as is division of labor (Baldridge and Burnham, 1975; Hage and Dewar, 1975) while increased formalization of rules and policies is not (Rosner, 1968).

What knowledge can be deduced from these studies and how can this knowledge be applied to police organizations? The reviewed literature offers several inferences concerning innovation and change. Among these propositions are the following:

- The adoption of large-scale organizational changes is more likely to occur if management devotes considerable attention to management of the change process, including implementation of changes, and the adoption of new management systems consistent with implemented changes.

- Large-scale, sustained organizational change may ultimately result in the adoption of new supervisory/management styles.

- The use of "boundary spanners" (individuals with specific responsibility to interact with other organizations in the environment) will enhance the implementation of change provided that such individuals are integrated into the organization.

- Management's efforts to implement multiple organizational changes simultaneously may be detrimental to the ultimate implementation of any change.

- Police officers may readily accept the need for change and adoption of innovations, but often do not have confidence in management's ability to implement change.

- Changes in organization and management systems and processes may not produce enhanced employee satisfaction because of perceptions of interference in internal management from sources external to the organization, or perceptions of volatility in the organizational environment.

- A number of organizational attributes are positively associated with acceptance of change and innovation. Among these attributes are: organizational size, variability in task structure, and division of labor.

- Increased formalization of written rules is not associated with individual attitudes toward change or innovation.

These propositions have considerable implications for police organizations. First, the literature has suggested that larger, more structurally differentiated police organizations may be proven to adopt change more readily than smaller, less complex organizations. Many large police organizations exhibit a differentiated structure. Change in such organizations will occur, however, only if executive level managers devote

considerable attention to the implementation and management of such change. The adopted changes must be clearly documented; changes in program or policy being changed will jeopardize the ultimate goal of smooth implementation of change. Similarily, the proliferation of numerous changes may negate the likelihood of adoption of any change or innovation. Finally, considerable attention should be given to the role of managers and supervisors in the change process with a view toward assuring changes in the roles and responsibilities of these individuals where needed.

## Public Support and Perceived Legitimacy of the Police Function

In the past 10 to 15 years there has been a concerted effort in the police research community to analyze citizen perceptions toward police service. This interest has stemmed in part from the recognition of strained relations between the police and the community. Acknowledgement of negative attitudes toward the police by citizens and the police officer's perception of citizen hostility precipitated the development of police community relations programs in many cases and has resulted in the widespread use and general acceptance of the citizen surveys as a measurement device in police research studies. Many of these studies, especially those conducted in the late 1960's and early 1970's for the President's Commission on Law Enforcement and Criminal Justice, have been exploratory and designed to develop a profile of citizen victimization rates and attitudes toward police service (see White and Menke, 1978, for a review of these studies).

There is reason to believe that these early studies embodied several methodological problems which may have been factors in the development of divergent conclusions concerning citizen perceptions. As reported by White and Menke (1978), one study, conducted by Biderman, Johnson, McIntyre, and Weir concludes that citizens have primarily positive perceptions of the police. Another study conducted by Reiss suggests that the public is largely ambivalent toward the police, while another study by Ennis concludes that public opinion is scattered on issues concerning the police. White and Menke (1978) have conducted a review of these studies and indicate that they suffer from being atheoretical and utilizing, in some instances, inappropriate sampling and analyses strategies. White and Menke (1978:207) state that these methodological problems render the collected data open to several plausible interpretations and, therefore, the studies should not be used for policy analysis.

White and Menke (1978) completed their own citizen survey and suggest that their findings provide further insight into the results of these earlier studies. White and Menke (1978:217-218) demonstrate that when citizens are asked general questions concerning police performance and role in the community, they are, for the most part, very supportive of the police. When asked more specific questions, however, concerning particular police behavior

(e.g., police practices in conducting searches, or the propensity of the police to coerce confessions from suspects, or apply force in carrying out their duties), citizens elicit less favorable responses. White and Menke assert that some earlier studies of citizen attitudes did not go far enough in distinguishing differences between general and specific attitudes.

Bell (1979) conducted a citizen attitude survey and derived findings paralleling those generated by White and Menke. Bell noted that citizens assessed police services as positive, but indicated that there was a need, among other suggested improvements, for several internal improvements in police executive leadership and personnel development.

These studies appear to lend credence to the notion that certain citizen surveys may possess a limited methodology and may not depict actual citizen sentiments regarding specific police problems and needs. This criticism may be pertinent for certain surveys conducted by police agencies. Citizen surveys have been administered by police chief executives as a means of assessing organizational performance and citizen expectations of the police. Oftentimes, such surveys are used to show leadership in the community.[66] These surveys are by and large qualitative and usually rely on a sampling of citizens to develop policy recomendations regarding resource allocation, budget development, and new program development. In some instances, however, these surveys may not probe deeply enough or may not be based on a methodology which will facilitate the development of recommendations.

There has also been a growing interest in the correlates of citizen attitudes on the part of researchers (Black, 1970; Black and Reiss, 1970; Bordua and Tifft, 1971; Smith and Hawkins, 1973; Boggs and Galliher, 1975; Sykes and Clark, 1975; Thomas and Hyman, 1977; Lewis and Sullivan, 1979). These researchers have shown that prior contact with the police helps to shape citizen attitudes, whereas victimization does not. Citizen advocacy and officer expectations of deference from the citizenry also influence the police--citizen interaction and perceptions.[67] Citizen advocacy refers to community norms and desires for certain police actions as expressed in police-citizen interactions. Where the community desires sterner enforcement, the police often comply; where non-enforcement is expected, the police will

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[66] Certain prescriptive texts on police administration recommend that police agencies conduct periodic public surveys to elicit evaluations of police service and determine citizen expectations of the law enforcement agency. See, for example, National Advisory Commission on Criminal Justice Standards and Goals, (1973:17).

[67] These topics are analyzed in greater detail in Chapter II: Environment and Organizational Autonomy.

usually take actions other than enforcement. The socioeconomic characteristics of a community have been shown to influence this expectation. Community attitudes toward the police will thus vary according to these socioeconomic characteristics.

The overall value of these studies has been the recognition that citizen perceptions are first shaped by norms and values, and secondly are shaped by their experiences with the police. If, in the first instance, citizen norms dictate that the police should behave in a certain way, whether it be to enforce the law sternly, or to ignore violations of the law, and police actions are divergent with expectations, then perceptions of police service may be negative, despite the equity of police actions. If actions are consistent with expectations, then perceptions will usually be favorable. The second factor, experience, also takes on a critical role in influencing perceptions. If prior experiences with the police are favorable, then perceptions will normally be positive. Negative experiences often result in negative perceptions.

More recently, citizen surveys have been utilized to evaluate specific management practices or reform movements in policing (e.g., consolidation, education, training, professionalism). A number of researchers including Ostrom, Parks, and Whitaker, as well as Chackerian, have opted to solicit citizen perceptions regarding these reforms or organizational improvements. In these studies, citizen perceptions have been used as effectiveness criteria. Ostrom and Parks (1973:378), for example, noting inadequacies in existing measures of police effectiveness, assert that surveys of citizen-reported experiences with the police and citizen evaluations of the police form an independent means of assessing the quality of police service.

Studies by Ishak (1972), Ostrom and Parks (1973), Ostrom, Parks and Whitaker, 1973; and Ostrom and Whitaker (1973) demonstrate that citizen survey data do not verify the supposition that police services will improve as size of agency increases. On the contrary, these researchers utilize survey data concerning citizen feelings of safety, confidence in the police, and a general evaluation rating of the police to show that service quality is deemed to be higher in small, locally controlled jurisdictions. These conclusions are strengthened by the matching of sampled neighborhoods by socioeconomic factors (to control for the influence of these factors on perceptions). These studies also suggest that higher levels of police service, as derived from citizens' evaluations, are found in jurisdictions where the costs of providing police service are lower.

In a similar, exploratory research study, Pachon and Lovrich investigated the relationship between socioeconomic characteristics and perceptions among citizens in metropolitan as opposed to suburban jurisdictions. These researchers found that without controlling for socioeconomic factors, satisfaction varied inversely with agency size. When socioeconomic characteristics are controlled, there is very little evidence of

a negative relationship. This finding is dissimilar to conclusions of Ostrom, Parks, Whitaker, and Ishak, but corresponds to other studies cited elsewhere in this report, indicating that socioeconomic factors influence percep-tions.[68]

Another key determinant of citizen perceptions appears to be perceived access to the police agency. Chackerian and Barrett (1973) and Chackerian (1976) analyzed citizen evaluation data from five metropolitan counties in Florida, comparing attitudinal data (measuring citizen evaluation of services) with crime rates and an independent measure of agency professionalism obtained from the state planning agency. The intent of these studies was to test three hypotheses: (1) high citizen evaluations are positively associated with low crime rates, (2) professionalism is positively associated with low crime rates, high arrest rates, and citizen perceptions of equity in enforcement, and (3) professionalism is positively associated with high citizen evaluations of the police. Chackerian (1976) found that arrest rates are positively correlated with high citizen evaluations, whereas the crime rate was negatively correlated with citizen evaluations. Professionalism was found to be negatively correlated with citizen evaluations. One of the strongest correlates of positive citizen evaluation, moreover, is perceived access to government. Chackerian concluded that this was a positive determinant of citizen evaluations regardless of the crime rate. He suggests that citizens appear to be dissatisfied when they feel that government services are remote, but also when highly professionalized police agencies seem incapable of impacting high crime rates.

This study appears to shed further insight into the earlier noted results produced by Ostrom, Parks, Whitaker, and Ishak. Citizens may place greater value on local community control of the police because they perceive that under such an arrangement they will have greater access to the police. The negative association between professionalism and citizen evaluations further supports this notion. Citizens may not highly value "professional" police agencies because of the feeling that such agencies may not be as prone to permit access to the average citizen.

Thus, it can be concluded that the sampled literature identifies several factors which impact citizen perceptions. By way of summary, it has been shown that socioeconomic characteristics, experiences with the police, the crime rate, police arrests, and perceived access to the police agency all influence citizen perceptions. Citizen attitudes may be used as a measure of agency effectiveness. Such attitude surveys may be used as alternative measures of effectiveness and may identify organizational problems and the

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[68]/The relationship between socioeconomic characteristics and citizen perceptions is analyzed in greater detail in Chapter II: Environment and Organizational Autonomy.

need for improvements. To identify such problems, managers must take steps to assure that attitude surveys are comprehensive and probe deeper than simply asking general questions concerning citizen satisfaction with police services.

### Police Management, Administration, and Individual Performance

Individual performance, like organizational effectiveness, has been subjected to many definitions in research studies. Performance has been associated with productivity, attendance, compliance with rules and procedures, history of citizen complaints, supervisory evaluations, and promotion and advancement patterns. The sampled research studies selected and reviewed for this project incorporated each of these measures. Thus, it is difficult to produce a uniform set of generalizable relationships correlating management practices or organizational structures to performance. Rather, it is only feasible to deduce a knowledge base which depicts correlations between management and organizational variables and unique performance criteria.

The sampled police literature tends to define performance as conformity to rules and procedures, promotion and advancement potential and history, and supervisory performance evaluations. Very little attention is given to measurements of productivity. This is due most likely to the fact that little is known about individual police officer productivity, or about police organizational productivity. This absence of well-founded, empirically based data stems from disagreements over what it is the police are and should be doing. Many so-called police functions and activities are very difficult to measure. How does one measure a patrol officer's ability to deter crime, maintain order, or provide service? Typical, readily available performance measures yield little data upon which to evaluate such activity. Arrest statistics are not measures of individual performance in carrying out these functions. Neither are attendance records or discipline histories. Researchers using these measures assume that an officer who has a good attendance and complies with organizational rules, policies, and procedures is a good performer. This has not been verified, however, through empirical research.

Supervisory evaluations, promotion history, and tenure may actually be more appropriate measures of performance. These measures, nevertheless, are problematic in their own right. Police performance evaluation systems tend to leave too much room for personality to color ratings. The same can be said for promotion systems. These, too, are more often measures of individual ability to work effectively with supervisors and peers and are not barometers of individual ability or supervisory potential. Arguably, these criteria are important performance dimensions, for individuals must demonstrate the capacity to work well with others in order to be effective in their jobs. Typical supervisory ratings, promotion histories, and measures of tenure, however, may place too great a value on these dimensions, and not enough value

however, may place too great a value on these dimensions, and not enough value on other job-related, behavioral performance criteria.

Individual Attributes and Performance. A considerable portion of the police literature addressing performance does so in the context of recruitment and selection systems. Researchers seeking to identify relationships between certain individual capabilities, experiences, and performance have utilized numerous performance criteria. These researchers have shown that intelligence, personality, and individual background all are associated with selected performance measures. The relationships between these individual traits and performance have been analyzed in an earlier chapter of this report.[69]/ It is noteworthy, nevertheless, to highlight here relevant studies which incorporated multiple performance measures.

The works of Baehr, Furcon, Froemel, and colleagues (Furcon, Froemel, Franczak, and Baehr, 1971; Furcon, Froemel, and Baehr, 1973) depict the relevance of intelligence test scores of police recruits, individual personality, and background characteristics on eight separate performance criteria: (1) supervisory ratings, (2) tenure, (3) awards, (4) citizen complaints, (5) disciplinary history, (6) arrest performance, (7) attendance, and (8) a paired comparison rating of performance by separate supervisors. The contribution of these studies is that they depict that individual characteristics may influence any one of several police performance criteria.

A study by Cohen and Chaiken (1972) complements these works, although this study does not show a correlation between performance and intelligence test scores. These researchers operationalized performance as: (1) career advancement, (2) tenure, (3) disciplinary history, (4) civilian complaints, and (5) allegations of harassment. Interestingly, Cohen and Chaiken (1972:xviii) found that the two strongest predictors of performance were a candidate's recruit training score and probationary evaluation. This finding may be deemed to suggest that police recruit training systems tend to weed out those who do not perform well and identify accurately those officers who will "perform" effectively in the future. On the other hand, these findings could be said to infer that officers with the capacity of adapting well to the police organizational culture will be identified at an early point in their careers and be evaluated positively as their careers progress. This inference supports the earlier supposition that police performance evaluation and advancement systems may be based more on the ability to cope with the organization than on day-to-day job related criteria. The precise interpretation from Cohen and Chaiken's study cannot be drawn at this point. Certainly this would be a good subject for further research.

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[69]/A thorough discussion of recruitment and selection systems is included in Chapter V: Organizational Coordination and Control.

The sampled police literature also suggests that officer education is a strong correlate of performance (Bozza, 1973; Cascio, 1977; Roberg, 1978). These studies operationalize performance differently, however, and this difference in methodology limits the generalizability of these studies. The study by Bozza (1973) associated education levels with arrest performance. His sample was quite small and he did not control for other factors which may have influenced arrest rates.

Roberg (1978) assessed the relationship between education and police officer dogmatism. Roberg hypothesized that education would decrease officer dogmatism and hence increase performance. He operationalized performance as supervisory evaluation ratings. Roberg found evidence of a negative correlation between education and dogmatism giving support to the argument that education will result in more open belief systems among officers. He also observed a positive correlation between education and performance ratings. Finally, Roberg noted that lower dogmatism scores were correlated with higher performance ratings (i.e., the more open the belief system, the higher the performance). A number of control variables, including age, seniority, college major, and student status were also measured, and it was found that none of these variables influenced significantly the observed relationship between dogmatism and performance.

Zelig (1980) reviewed Roberg's study and critiqued his findings based on the use of the supervisory performance evaluation as the measure of performance. Zelig (1980:99) summarizes three difficulties arising from use of these evaluations: (1) Roberg's attempt to establish inter-rater reliability by comparing the patrol seargeant's rating with a rating by a lieutenant did not allow for independent ratings of the same officer, (2) there is serious question as to whether supervisory evaluations are valid measures of performance, (3) variability in the police role makes it difficult for supervisors to define accurately gradients of performance.

These criticisms are valid and once again identify some of the inherent difficulties in police performance evaluation systems. Recognizing these deficiencies, Cascio (1977) reported on the development of a job-related performance evaluation system as used by the Dade County, Florida, Police Department. This project featured the identification of behaviorally anchored performance criteria (e.g., job knowledge, judgment, initiative, dependability, demeanor, attitude, relations with others, communications), as well as measureable and recorded job performance characteristics (e.g., injuries, accidents, disciplinary actions, commendations, citizen complaints, sick leave patterns). Cascio found that education appeared to correlate negatively with certain documented job characteristics, such as fewer injuries, fewer assaults, fewer injuries by assault and battery, fewer disciplinary actions from accidents, fewer preventable accidents, fewer sick times per year, and fewer physical force allegations. Education, however, was not correlated with behaviorally anchored job criteria.

Noting this finding, Cascio was interested in pursuing further the relationship between education and performance. He investigated the effects of intelligence and motivation on performance to determine if these criteria were stronger determinants of performance than was education. In conducting this analysis, Cascio also researched the linkage between intelligence and motivation, and education. He found that intelligence has a negligible effect on performance, while motivation exerts a positive independent influence on performance. Both intelligence and motivation were positively related to educational level. Education, however, was the strongest single predictor of performance. Cascio (1980:95) completed his analysis by concluding that educational level along with individual motivation are prime determinants of performance, and both should be considered in predicting police officer performance.

Cascio's study can be considered a significant contribution to the field because of its reliance on multiple performance criteria and analytical sophistication in differentiating the effects of intelligence, motivation, and education on performance. His finding that intelligence was not significantly related with performance conflicts with other studies, some of which have been noted earlier in this chapter, which have assessed the relationships of the police recruit's background characteristics with performance. The study by Furcon, Froemel, and Baehr (1973), for example, shows that recruit intelligence tests are related to performance, as measured primarily through three criterion variables: (1) paired comparison ratings of supervisors, (2) departmental rating (performance rating), and (3) tenure. Cascio's findings, however, are consistent with those of Cohen and Chaiken (1972), referenced earlier in this chapter, suggesting that his research results from Dade County may not be atypical to results which would be obtained in other jurisdictions.

How can these research studies be synthesized to generate a knowledge base on police performance? It can be concluded that education and motivation are positively related to performance, while there is reason to believe that intelligence, by itself, is not related to performance. Intelligence, however, may influence motivation and education levels. Motivation also is an indirect influence of educational levels. These relationships may be depicted graphically as in Figure 23 below. It should be noted that individual background criteria are not shown here as correlates of performance. These individual traits have been correlated with performance, but their effects are likely explained by variations in motivational and intelligence levels. Therefore, these variables have been omitted from the graphic. It should also be remembered that performance is multifaceted; any research attempting to verify the relationships shown below should consider numerous performance measures, including both experience-based performance criteria (e.g., disciplinary history, arrest history, awards, leave patterns) and behaviorially-anchored criteria.

Figure 23

RELATIONSHIP OF INTELLIGENCE, MOTIVATION AND EDUCATION TO PERFORMANCE[70]
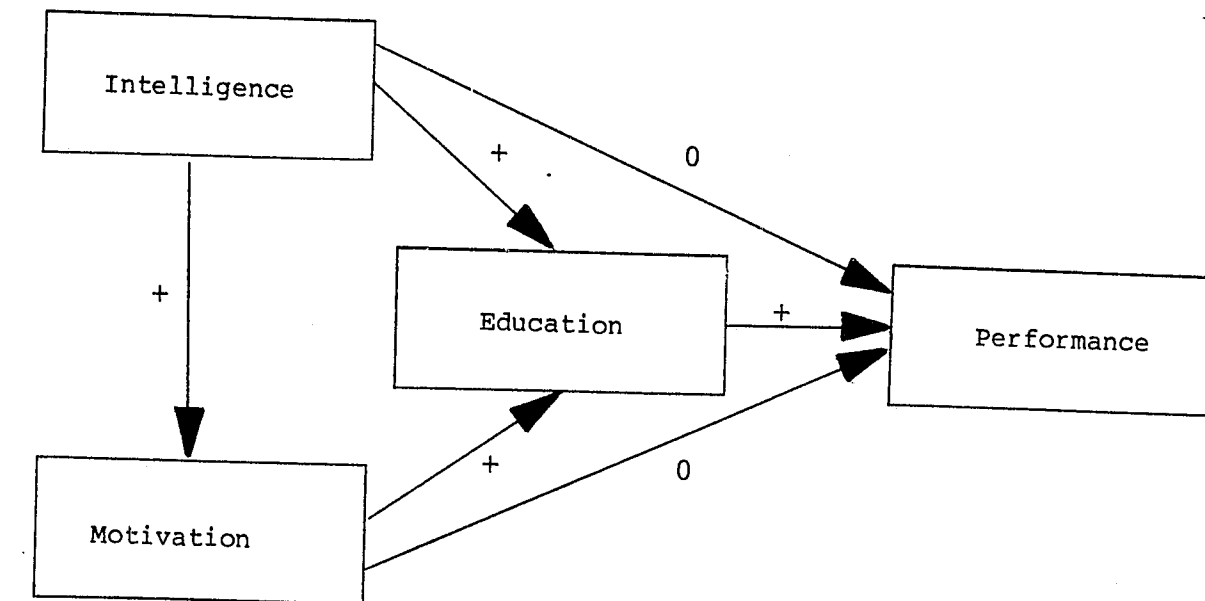


Organizational Attributes and Performance. The police literature also examines the relationship of certain organizational and managerial variables with performance. The general management literature sampled for this study also yielded knowledge concerning the effects of managerial and administrative practices on performance.

The police literature sampled for this study yielded only limited knowledge as to the effects of management practices on performance. Perhaps the most striking finding to be derived from these studies is that social cohesion among police officers influences performance, perhaps more than any other variable. Studies by Gardiner (1968) and Petersen (1971) have shown that peer influence plays a strong role in influencing police traffic officer enforcement patterns. A study by O'Neill (1974) considered the effect of this influence, as well as many management considerations (e.g., written rules or policies, supervision styles) and concluded that peer relations play a

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[70]This graphic was derived from a diagram presented by Cascio (1977:94).

paramount role in influencing police discretion. A similar finding was noted in the social science literature concerning the effects of peer influence on school teacher conformity to rules (Warner, 1969).

A related finding was noted by the Boston University Center for Criminal Justice (1978) in their study of police rule making. They concluded that rules and procedures have little effect on behavior because there are no incentives for officers to comply with the rules. The occupational culture of police organizations militates against conformity to such rules and procedures. This observation was noted by Reiss (1971) and has relevance for the study reported by the Boston University Center for Criminal Justice. Efforts to upgrade police conformity to rules and policies should include incentives to induce officers to comply.

Sampled police studies also indicate that police training systems have only a minimal impact on performance. Studies by McNamara (1967) and Smith and Ostrom (1974) suggest that recruit training programs do little to prepare a police officer for the realities and uncertainties of police work and may do more to prepare officers to cope with internal police management practices and bureaucratic structures.

Studies in the general social science literature yield greater insight into the effects of managerial and organizational practices on performance. Similar to the above-noted policies, Evan and Simmons (1969), and Child (1973a) observed that formalized rules and procedures have little impact on individual conformity to rules and regulations. This finding suggests that experience in the police environment may not be unique and that written rules (designed to increase conformity to management policies) may have little effect on behavior.

The management literature also yields knowledge on positive determinants of performance. Hall and Lawler (1970) observed that normative incentives (defined as perceived challenge, involvement, and degrees of responsibility) correlate positively with performance. Hall and Lawler measured performance both subjectively (supervisory evaluations) and objectively (performed activities).

Supervisory style is also a correlate of performance. This subject has been addressed earlier in this report but can be reiterated here.[71] As shown by Lowin, Hrapchak, and Kavanagh (1969) and Misumi and Seki (1971), supervisors adopting a consideration style (individual orientation) are more likely to experience positive performance from subordinates. A study by Hill

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[71] Further information concerning the effects of supervisory styles on performance can be found in Chapter V: Organizational Coordination and Culture.

and French (1967) arrives at a similar conclusion: namely, that collegial supervisory models positively affect performance.

These findings, although valuable, are based on a relatively small sampling of the literature. It may thus be premature to develop theories concerning individual performance. The variations in measurement of this variable compounds the difficulty in producing conclusive statements derived from empirical research.

The small amount of research in the police field analyzing the effects of management practices on performance highlights knowledge weaknesses concerning this topic. Very little is known about what management actions in policing produce positive performance. It has been shown that motivation is associated positively with performance, but what induces greater motivation? This has not been shown through existing sampled research. Certainly the findings from the non-police arena may be applicable here, and supervisory styles and the realization of normative incentives may induce better performance. This relationship should be verified in policing, however, through empirical research before any propositions can be developed. Such research should assess the effect of the informal work group on this relationship.

## Summary and Conclusions

This chapter has assessed the contributions of empirical research analyzing the output element of police organization and management systems. Four components of this output element, defined as organizational achievement, were analyzed in this chapter.

The sampled police literature for this conceptual cluster focused primarily on the variables entitled public support/legitimacy, individual performance, and organizational effectiveness. The number of sampled non-police studies was evenly distributed across three variables: organizational effectiveness, organizational change, and individual performance. There was a smaller emphasis in this sample on public support/legitimacy.

The sampled police studies used almost exclusively exploratory or case study research designs. Many sampled non-police studies also were exploratory, although 20 percent of the studies in this sample employ an experimental research design.

Sampled literature in both domains—the police and the non-police samples—presents differing conceptions of organizational effectiveness. Measures of this variable are not well developed in the police field; there are many methodological difficulties in measurements of effectiveness in the management and social science literature. Traditional police measures of

effectiveness (crime rates, arrests, clearances) are deficient because: (1) these measures focus on only one component of the police function--crime control, (2) present methods of crime reporting are highly suspect and may underestimate actual crime rates, and (3) the ability of the police to actually control crime is limited. Alternative measures of police effectiveness have been proposed, but use of these methods has not been reported extensively in the literature.

Several correlates of organizational effectiveness have been identified and are reported in this chapter. These correlates are derived from studies in the police field, as well as from other disciplines.

The police literature contains several qualitative analyses of organizational change. These studies indicate that organizational change will not occur unless management undertakes comprehensive programs of change with carefully planned implementation strategies. Attempts to introduce too many changes at once will result in failure of the change program; an inability to sustain structured or managerial changes will hamper the overall change effort. Police officers were found to be receptive to the need for change, but skeptical of management's interests in implementing change and of management's ability to manage the change process. Police officers were also noted to be skeptical toward "outside interference" in management and administration once organizational changes are implemented.

Research in the non-police disciplines illustrates that larger, more differentiated organizations may find it easier to adopt change and innovation, and that greater perceived environmental uncertainty is positively associated with organizational change. The use of "boundary spanning" personnel was shown to stimulate adaptability to environmental changes.

A review of research on public support/legitimacy reveals differing conclusions concerning the public's perception of the police. Certain early studies of citizen perceptions (conducted in the late 1960's and early 1970's) had methodological weaknesses and did not distinguish between general citizen sentiments regarding the police and specific citizen perceptions of needed improvements in police agencies. More recent studies have shown that the police are viewed positively when citizens are asked general attitudinal questions regarding the role of the police, but less favorably when specific questions concerning police behavior are posed to citizens.

Several factors have been shown to be correlated with citizen perceptions. Among these factors are the norms and values of the community, socioeconomic characteristics of the community, the crime rate, and perceived access to public agencies on the part of citizens. These factors should all be considered in any assessment of citizen perceptions.

The subject of individual performance has been subjected to numerous definitions in research studies. The police literature conceptualizes

performance primarily as individual officer history and experiences, with only minimal attempts at assessing individual productivity. The literature suggests that little knowledge is available concerning the measurement and determinants of behaviorally anchored job performance dimensions.

A considerable percentage of the sampled police literature has focused on individual attributes of performance noting that motivation and education are positively related to individual performance, while intelligence levels may not be related to performance. Intelligence levels, however, appear to be related to both motivation and education. The police literature presents very little knowledge regarding the relationship of organizational and management practices to performance.

Several pertinent topics for future research were identified throughout this chapter. Among these were the following suggestions for additional research:

- The subject of effectiveness should be researched further with alternative measures of effectiveness utilized. This research should likely be limited in scope and consider specific police activities, functions, or services with a view toward developing appropriate measures of effectiveness. Such studies should investigate police effectiveness in delivering services and maintaining order, as well as controlling crime.

- Additional research is needed to specify those management and organizational practices which are most conducive to employee acceptance of change. The current research literature indicates many general management strategies to affect change, but by and large stops short of yielding knowledge on specific actions which facilitate the adoption of change.

- There is a need for further research examining behaviorally-oriented police officer performance characteristics. This research should endeavor to develop valid measures of such characteristics (e.g., demeanor, knowledge, skills) and identify the relationship between these performance dimensions and actual day-to-day activities. This research should also analyze the relationship of behavioral dimensions to documented, experience-based, police performance measures (e.g., discipline history, leave patterns, awards, promotions).

● Additional research is needed to determine what management and administrative practices are correlated with individual performance. This research should ascertain whether the following variables are correlated with performance: incentives: normative, and styles of supervision, particularly supervisor structures that exhibit a consideration style. This research should analyze the effects of social cohesion in the work group on this relationship.

VIII.  SIGNIFICANCE AND CONTRIBUTION
OF THIS SYNTHESIS OF RESEARCH
AFFECTING POLICE ADMINISTRATION
AND MANAGEMENT

This report has presented a comprehensive synthesis of research affecting police administration and management. The report breaks new ground in using empirically-derived findings to analyze relationships between managerial and organizational dimensions. The conceptual framework structured specifically for this project served as a standardized analytical tool for assessing these relationships. Using this framework, it has been possible to analyze research findings from many organizational disciplines and develop inferences regarding numerous management, administrative, and organizational topics.

The significance and contribution of this study can be analyzed from four perspectives. The study has provided valuable contributions in:

1. Assessing the state of the art of police research subject matter and methodologies.

2. Identifying the policy significance of research affecting police management and organizations.

3. Yielding a research agenda for future police management and organizational research.

4. Providing a comprehensive conceptual framework for analyzing research studies addressing organizational, managerial, and administrative subjects.

Each of these contributions merits individual attention; each is discussed in the following sections.

Assessment of the State of the Art of Police Research
Subject Matter and Methodologies

The descriptive analysis component of each chapter in this report provides a synthesis of the subjects examined in sampled research studies, as well as a review of the methodologies employed by researchers. These analyses yield thorough reviews of the state of the art of police research subject matter and methodologies. This analysis identifies not only the frequency of reported research on numerous topics, but also provides a review of research designs, methods, and analytical techniques.

A review of the content of sampled research, ranging in subject matter from environmental influences on the police organization to assessments of organizational effectiveness, indicates that there are definite patterns in police research subject matter. Those who have initiated police research studies have shown much greater interest in conducting research on the role, personality, and specific activities of the individual police officer, as evidenced by the number of journal articles and other documents published. This interest has extended to research on the administrative processes of hiring, training, and supervising the individual officer. There has been much less emphasis given to research on the police management and organization structure, the roles of individual actors within the police management hierarchy, the internal decision-making process within the police organization, and on the working relationships between police organizations and other government administrative and political systems. Furthermore, the interest in police supervisory systems has not yielded detailed knowledge concerning behaviorally-oriented motivation and leadership practices.

A review of the subject matter identified and sampled for this study will demonstrate these patterns. It should be stressed again that this project has compiled an extensive body of literature on police organization and management issues consisting of 485 research reports or journal articles, but this aggregation of research studies is only a sample. Therefore, statements concerning the state of the art refer only to this sample and not to the entire body of literature. A frequency tabulation of the number of studies by specific variables is presented in Figure 24.[72/] This graphic depicts the emphasis on subject matter pertaining to the role and activities of the individual police officer and demonstrates less interest in the sampled literature on subjects concerning organization structure, decision-making, and motivation and leadership topics.

As noted in this figure, six of the eight most frequently researched topics focus on the individual officer and provide information on his/her interaction with the public, his/her educational level, the amount of discretion inherent in the individual officer's position, the intelligence, personality, and background characteristics of the individual officer, the values and attitudes of the individual officer, and the performance levels of the individual. Even the two remaining variables, Environment: Aggregate, and Public Support, Legitimacy, are indirectly related to the individual. Research studies examining environmental issues often do so in the context of

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[72/]It should be noted that many of the variables appearing in this figure were sub-divided in the respective chapter of this report. Such variables have not been sub-divided for purposes of this figure. Therefore, a variable may appear to be researched extensively when only a limited amount of research has been conducted on a given sub-variable.
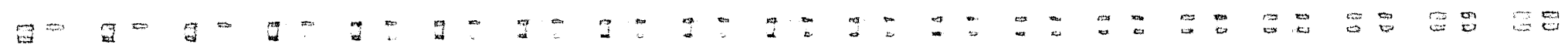
Figure 24

FREQUENCY OF EXAMINATION
OF SUBJECT MATTER IN SAMPLED POLICE RESEARCH STUDIES

| Very Frequent | | Frequent | | Very Infrequent |
|---|---|---|---|---|
| ● Environment: Aggregate | ● Functional, Economic Autonomy | ● Legal, Political Autonomy | ● Organization Size: Members | ● Organizational Age |
| ● Environment: Relational, Structural Characteristics | ● Skill Structure, Professionalism | ● Departmental Specialization | ● Functional Specialization | ● Diversity of Objectives |
| ● Stratification: Education | | ● Formalization/Written Rules | ● Incentives: Material | ● Number of Objectives |
| ● Discretion | ● Stratification: Race | ● Hierarchical Levels | ● Decision-Making Systems | ● Geographical Dispersion |
| ● Recruitment, Advancement Systems | ● Stratification: Seniority | ● Group Cohesian | ● Organizational Change | ● Variability of Tasks |
| ● Employee Adaptation | ● Employee Coordination/ Control | | | ● Organizational Size: Clientele |
| ● Public Support, Legitimacy | ● Training Systems | | | ● Technological Complexity |
| ● Individual Performance | ● Satisfaction/Alienation | | | ● Stratification: Sex |
| | ● Organizational Effectiveness | | | ● Committees |
| | | | | ● Incentives: Social |
| | | | | ● Incentives: Normative |
| | | | | ● Span of Control; Manager Ratio |
| | | | | ● Administrative Staff and Communication |

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individual police-citizen interactions; citizen surveys frequently address individual citizen perceptions regarding the police-citizen contact and experience. Conversely, the opposite end of this continuum (specifically, the last two points on the continuum) includes variables describing internal organizational structural arrangements (e.g., geographical dispersion, variability of tasks, functional specialization, technological complexity), internal decision-making (e.g., decision-making systems, committees), and behaviorally-oriented supervision and management considerations (e.g., incentives, communication).

There is a definite trend apparent in this continuum. While it is not possible to develop quantitative interpretations of this trend, it is clear that as one reads from left to right there is a movement away from individually-oriented subjects to management- and organizational-oriented topics. This trend quite obviously impacts the amount of available knowledge on police organization and management.

This study has compared, where possible, research in other organizational disciplines with research in policing. In many instances, this comparison has proved fruitful and voids in the knowledge base in police research have been filled with findings in other disciplines. It has not always been possible, however, to transfer findings from one discipline to another. Thus, many of the subjects infrequently addressed in police research are prime candidates for further research.

This synthesis has also demonstrated that a considerable amount of research in policing has been exploratory in design, very often includes only qualitative or descriptive analyses, and therefore, may not result in the production of knowledge. There are at least three reasons for this tendency in research. First, the research interest in management practices and organizational structures in policing is relatively recent. Prior to the mid-1960's, there was very little demonstrated interest in police management and organizations by sociologists, psychologists, management theorists, and other researchers. The advent of federal funds and increased publicity about the problems of police organizations, starting in the mid-1960's, undoubtedly spurred an increased interest in police by these researchers and scholars. Because very little research had been performed previously, these individuals had only a minimal knowledge base to work with, and consequently, often resorted to initial descriptions of what police organizations do and how they conduct their job. In essence, there was limited opportunity to utilize more sophisticated research designs and analytical techniques. Throughout the 1970's, however, there has been greater opportunity to devise and test theories concerning managerial and administrative issues. While certain researchers have resorted to more sophisticated analyses, there is still evidence of a tendency to conduct and report exploratory, qualitatively-oriented research in policing.

The second obvious reason for lack of sophistication is that police research tends to be parochial. Through this review of research studies, it has been observed that many researchers in policing fail to develop a theory before proceeding to collect and analyze data. Their research is often parochial in that they do not analyze carefully related works in other disciplines, including sociology, psychology, and management and administration. Consequently, researchers embark on analyses of management and organization practices with little regard for findings in other disciplines. Their research results often tend to have limited generalizability, because they have not considered the full realm of issues surrounding a research topic.

To illustrate, consider the subject of police discretion. Numerous studies have been conducted analyzing the application of police discretion, but many fall short of considering the experiences regarding the structuring of job tasks and assignments in other organizational disciplines. There is an extensive body of literature focusing on variability of individual tasks, individual autonomy, and functional specialization in the work place. Too often, police researchers fail to consider the research findings produced in such disciplines when analyzing police discretion.

Finally, reported police research has tended to be descriptive and exploratory because of an apparent low priority in publications on research methods and standards. Noted police administrative journals often report research studies which fail to analyze and describe thoroughly pertinent background literature, study hypotheses or research questions, data collection methods employed, and the relevance of findings produced. This same observation applies to certain research studies funded by the National Institute of Law Enforcement and Criminal Justice, particularly during the early years of its existence. The net effect is that certain research is atheoretical, lacking in methodological sophistication, and not generalizable.

This critique by no means is meant to disparage those works in the literature which are methodologically sound. There are many such research reports published; these form the basis of the inferences developed in this report. A review of the state of the art, however, demonstrates that there is room for improvement.

## Identification of Policy Significance of Research Affecting Police Management and Organizations

Throughout this report, there has been a conscious attempt to develop policy-relevant findings concerning the state of the art of police management and administration. This report, in some instances, confirms theoretically based management and organization principles. On the other hand, the report also suggests that certain such principles espoused by police management theorists are not supported by empirical research. Further, this report has

highlighted areas where research findings have very little relevance for police executives and managers because of difficulties in research methods, or simply the low priority of the findings produced. The report thus provides a contribution in synthesizing and diagnosing the relevance of research on management and organizations.

By way of example, consider the subject of centralization of authority. This report has illustrated certain consequences of management efforts to centralize decision-making authority. Movements to increase centralization of decision-making are likely to result in greater conformity to rules and procedures by employees and greater control of decision-making processes by executives. Such a management decision, however, is also likely to result in decreased social cohesion among employees, decreased individual satisfaction in the work environment, and more limited ability of the organization to adapt to environmental changes. These reported findings are based on sound research from the police or other organizational environments.

The report also illustrates that certain theoretically sound management practices do not produce intended results. Consider, for example, the subject of formalization/written rules. The report points out that an increased proliferation of rules and regulations may not induce individual compliance with management's expectations; in fact, such an action may actually decrease individual conformity, especially where individual tasks and assignments are highly variable.

Furthermore, the study suggests that research results frequently provide little in the way of valuable administrative advice because of problems in conceptualizing measures. For example, there is a considerable body of research in police literature examining individual performance. Much of this literature, however, defines performance as conformity to organizational policies, only one dimension of performance. Very little knowledge is available regarding individual productivity, an issue of prime concern to administrators.

## Development of a Research Agenda for Future Police Organization and Management Research

This report has identified numerous topics for further research and, as such, will serve as a valuable resource for academics, funding agencies, and practitioners with an interest in experimenting further with management concepts. The report presents such topics in order of conceptual cluster areas--the general content areas within the field of management and administration.

This study has featured a concentrated effort to identify those subject areas where future research is needed. In addition, suggestions to enhance the value of these future research efforts have been included to help

define research needs or to minimize threats to the generalizability of future research. The study has not attempted, however, to prioritize future research topics. This is beyond the scope of this project and dependent on other factors, primarily funding availability.

One limitation of this study is its reliance on identified and reviewed research results in structuring the recommendations for future research. An important objective of this study was the synthesis of existing, available research reports or articles, both in the police field and in other disciplines. Limited resources constrained the project from conducting an exhaustive review and synthesis of all pertinent literature. Undoubtedly, there are research studies which have not been reviewed and considered in the preparation of a future research agenda. Therefore, individuals wishing to develop a research study addressing one of the topics highlighted in this report may wish to conduct a more detailed literature search regarding the particular topic to be addressed.

It is suggested that a continued review and analysis of the literature be conducted by reviewing abstracts organized by subject area and not be tied to any one journal or set of journals. This process would facilitate a discipline-independent review of the literature.

## Development of a Comprehensive Conceptual Framework on Organizationa, Managerial, and Administrative Subjects

A tangible product of this project is the provision of a discipline-independent, comprehensive conceptual framework for analysis of police management research. This framework has facilitated a macro analysis of police research, from the standpoint of analyzing research results based on the organizational, individual, and social group components of the management and administrative process, and from the perspective of analyzing research results in private industry and government settings.

The framework thus serves as an analytical tool which can be utilized in further analyses of management research. The management field, by definition, is broad; there are numerous elements of management as reflected in the framework. The ultimate value of knowledge regarding police management and organizational issues is enhanced once this knowledge can be placed in perspective. Researchers interested in one managerial dimension can use the framework to hypothesize relationships concerning the interaction of this dimension with other relevant factors.

For example, researchers interested in developing a study on participative management techniques can refer to the framework in conceptualizing their study approach. In such cases, researchers should likely consider what factors influence management decisions to utilize participative management systems (e.g., environmental influences, the need to

integrate functionally diverse components of the organization) and consider what effects are produced by participative management. Effects can be conceptualized as organizational structural effects (e.g., impacting hierarchical structure and decision-making authority), interpersonal effects regarding the integration of either formal or informal work groups, or individual effects concerning the impact on the individual worker's commitment to the organization, satisfaction, or incentives. In short, the framework promotes analyses cutting across managerial disciplines in an effort to produce a greater utility of research findings.

Appendix  A

BIBLIOGRAPHY

Abrahamson, Mark.  "Talent Complementarity and Organizational Stratification."
Administrative Science Quarterly 18 (June, 1973): 186-193.

Ackerman, Robert W.  "Influence of Integration and Diversity on the Investment
Process."  Administrative Science Quarterly 15 (September 1970):  341-351.

Aiken, Michael, and Hage, Jerald.  "Organizational Alienation:  A Comparative
Analysis."  American Sociological Review 31 (August 1966):  497-507.

_____.  "Organizational Interdependence and Intraorganizational Structure."
American Sociological Review 33 (December 1968):  912-929.

_____.  "The Organic Organization and Innovation."  Sociology 5 (January 1971):
63-82.

Aldag, Ramon J., and Brief, Arthur.  "Supervisory Styles and Police Role Stress."
Journal of Police Science and Administration 6 (September 1978):  362-267.

Alderfer, Clayton P.  "An Organizational Syndrome."  Administrative Science
Quarterly 12 (December 1967a):  440-460.

_____.  "Convergent and Discriminant Validation of Satisfaction and Desire
Measures with and without Preceding Interviews."  Journal of Applied
Psychology 51 (1967b):  509-520.

Alderfer, Clayton P.; Kaplan, Robert E.; and Smith, Ken K.  "The Effect of
Variations in Relatedness Need Satisfaction on Relatedness Desires."
Administrative Science Quarterly 19 (December 1974):  507-532.

Aldrich, Howard E.  "Technology and Organizational Structure:  A Re-exam-
ination of the Findings of the Aston Group."  Administrative Science
Quarterly 17 (1972):  26-43.

Alex, Nicholas.  Black in Blue:  A Study of the Negro Policeman.  New York:
Appleton-Century-Crofts, 1969.

Alexander, James I.  Blue Coats-Black Skin:  The Black Experience in the
N.Y.C.P.D. Since 1891.  Hicksville, N.Y.:  Exposition Press, 1978.

Allan, Peter, and Rosenberg, Stephen.  "Getting a Managerial Performance System
Under Way:  New York City's Experience."  Public Administration Review 40
(July/August 1980):  372-379.

Altschull, J. Herbert.  "The Press and the Police:  News Flow and Ideology."
Journal of Police Science and Administration 3 (December 1975):  425-433.

American Bar Association.  Standards Relating to the Urban Police Function.
Chicago:  American Bar Association, 1973.

American Justice Institute. Police Effectiveness and Productivity Measurement: A Package of Concepts, Tools, and Guidelines for Building and Using a Measurement System. Vol. 4: Final Report of the National Project to Develop Police Performance Measures. Sacramento, Calif.: American Justice Institute, 1979.

Applewhite, Philip B. Organizational Behavior. Englewood Cliffs, N.J.: Prentice-Hall, 1965.

Aram, John D.; Morgan, Cyril P.; and Esbeck, Edward S. "Relation of Collaborative Interpersonal Relationships to Individual Satisfaction and Organizational Performance." Administrative Science Quarterly 16 (September 1971): 289-296.

Arcuri, Alan F. "Police Perceptions of Plea Bargaining: A Preliminary Inquiry." In Issues in Law Enforcement, pp. 408-423. Edited by George G. Killinger and Paul Crowell, Jr. Boston: Holbrook Press, 1975.

Argyris, Chris. "The Individual and Organization: An Empirical Test." Administrative Science Quarterly 4 (September 1959): 145-167.

_____. "Personality and Organizational Theory Revisited." Administrative Science Quarterly 18 (June 1973): 141-167.

Ashburn, Franklin G. "Changing the Rhetoric of 'Professionalism'" In Innovation in Law Enforcement, pp. 1-11. U.S. Department of Justice, Law Enforcement Assistance Administration. Washington, D.C.: Government Printing Office, 1973.

Assael, Henry. "Constructive Role of Interorganizational Conflict." Administrative Science Quarterly 14 (December 1969): 573-582.

Azen, Stanley P.; Snibbe, Homa M.; and Montgomery, Hugh R. "A Longitudinal Predictive Study of Success and Performance of Law Enforcement Officers." Journal of Applied Psychology 57 (April 1973): 190-192.

Babbi, Earl R. Survey Research Methods. Belmont, Calif.: Wadsworth, 1973.

Baehr, Melany; Saunders, David R.; Froemel, Ernest C.; and Furcon, John E. "The Prediction of Performance for Black and for White Police Patrolmen," pp. 66-81. In The Urban Policeman in Transition. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.: Charles C. Thomas, 1973.

Baines, John M. Mutual Aid Planning: A Manual Designed to Assist in the Development of Law Enforcement Mutual Aid Systems. LEAA Grant No. 72TA-99-0002. Washington, D.C.: National Sheriff's Association, 1973.

Baker, Thomas. "An Empirical Study of Police Deviance Other than Corruption." Journal of Police Science and Administration 6 (September 1978): 264-272.

Balch, David E. "Performance Rating Systems-Suggestions for the Police." Journal of Police Science and Administration 2 (March 1974): 40-49.

Balch, Robert W. "The Police Personality: Fact or Fiction?" Journal of Criminal Law, Criminology, and Police Science 63 (March 1972): 106-119.

Baldridge, J. Victor, and Burnham, Robert A. "Organizational Innovation: Individual, Organizational, and Environmental Impacts." Administrative Science Quarterly 20 (June 1975): 165-176.

Bale, James F., and Eastman, George D. "Police Service Today." In Municipal Police Administration. Edited by George D. Eastman and Esther M. Eastman. Washington, D.C.: International City Management Association, 1969.

Balzer, Anthony J. "Quotas and the San Francisco Police: A Sergeant's Dilemma." Public Administration Review 37 (May/June 1977): 276-285.

Bannon, James D. and Wilt, G. Marie. "Black Policemen: A Study of Self-Images." Journal of Police Science and Administration 1 (March 1973): 21-29.

Banton, Michael. The Policeman in the Community. New York: Basic Books, 1964.

Barnard, Chester I. The Functions of the Executive. Cambridge, Mass.: Harvard University, 1938.

Barry, Donald. "A Survey of Student and Agency Views of Higher Education in Criminal Justice." Journal of Police Science and Administration 6 (September 1978): 345-354.

Baty, Gordon B.; Evan, William F.; and Rothermel, Terry W. "Personnel Flows as Interorganizational Relations." Administrative Science Quarterly 16 (December 1971): 430-443.

Baumler, John V. "Defined Criteria of Performance in Organizational Control." Administrative Science Quarterly 16 (September 1961): 340-350.

Bayley, David H. "Police and Political Change in Comparative Perspective." Law and Society Review 6 (August 1971): 91-112.

_____. Forces of Order: Police Behavior in Japan and the United States. Berkeley: University of California Press, 1976.

Bayley, David H. and Mendelsohn, Harold. Minorities and the Police: Confrontation in America. New York: Free Press, 1969.

Beard, Eugene. "The Black Police in Washington, D.C." Journal of Police Science and Administration 5 (March 1977): 48-52.

Becker, Selwyn W., and Baloff, Nicholas. "Organizational Structure and Complex Problem Solving." Administrative Science Quarterly 14 (June 1969): 260-271.

Beckman, Erik. "Police Education and Training: Where Are We?" Journal of Criminal Justice 4 (Winter 1976): 315-322.

Belkin, Jacob: Blumstein, Alfred; and Glass, William. "Recidivism as a Feedback Process: An Analytical Model and Empirical Validation." Journal of Criminal Justice 1 (March 1973): 7-26.

Bell, Daniel J. "Police and Public Opinion." Journal of Police Science and Administration 7 (June 1979): 196-205.

Bennett, Richard R. "The Necessity of Critical Examination of Criminal Justice Concepts: A Case of the 'Symbolic Assailant.'" Journal of Police Science and Administration 4 (March 1976): 82-87.

Bennett, Richard R., and Greenstein, Theodore. "The Police Personality: A Test of the Predispositional Model." Journal of Police Science and Administration 3 (December 1975): 439-445.

Bennis, Warren G. "Leadership Theory and Administrative Behavior: The Problem of Authority." Administrative Science Quarterly 4 (December 1959): 259-301.

Bercal, Thomas E. "Calls for Police Assistance: Consumer Demand for Governmental Service." In Police in Urban Society, pp. 267-277. Edited by Harlan Hahn. Beverly Hills: Sage, 1971.

Berlew, David E., and Hall, Douglas T. "The Socialization of Managers: Effects of Expectations on Performance." Administrative Science Quarterly 11 (September 1966): 207-223.

Bernardin, H. John, and Alvares, Kenneth M. "The Managerial Grid as a Predictor of Conflict Resolution Method and Managerial Effectiveness." Administrative Science Quarterly 21 (March 1976): 84-92.

Beyer, Janice and Trice, Harrison M. "A Reexamination of the Relations Between Size and Various Components of Organizational Complexity." Administrative Science Quarterly 24 (March 1979): 48-64.

Biderman, Albert D. "Social Indicators and Goals." In Social Indicators. Edited by Raymond A. Bauer. Cambridge, Mass.: M.I.T. Press, 1966.

_____. "Surveys of Population Samples for Estimating Crime Incidence." Annals 16 (1967).

Billings, Robert S.; Klimoski, Richard J.; and Breaugh, James A. "The Impact of a Change in Technology on Job Characteristics: A Quasi-Experiment." Administrative Science Quarterly 22 (June 1977): 319-339.

Bittner, Egon. "The Police on Skid Row." American Sociological Review 32 (October 1967a): 699-715.

_____. "Police Discretion in Emergency Apprehension of Mentally Ill Persons." Social Problems 14 (Winter 1967b): 278-292.

_____. The Functions of the Police in Modern Society. DHEW Publication No. (HSM) 73-9072. Washington, D.C.: Government Printing Office, 1973.

Black, Donald J. "The Production of Crime Rates." American Sociological Review 35 (August 1970): 733-748.

Black, Donald J., and Reiss, Albert J. "Police Control of Juveniles." American Sociological Review 35 (February 1970): 63-67.

Blankenship, Ralph L., and Cramer, James A. "The Effects of Education and Training on Police Perceptions of Mentally Disordered Juvenile Behaviors." Journal of Police Science and Administration 4 (December 1976): 426-435.

Blankenship, L. Vaughn, and Miles, Raymond E. "Organizational Structure and Managerial Decision Behavior." Administrative Science Quarterly 13 (June 1968): 106-120.

Blau, Judith R., and McKinley, William. "Ideas, Complexity, and Innovation." Administrative Science Quarterly 24 (June 1979): 200-219.

Blau, Peter M. Bureaucracy in Modern Society. New York: Random House, 1956.

_____. "Structural Effects." American Sociological Review 25 (April 1960): 178-193.

_____. "The Hierarchy of Authority in Organizations." American Journal of Sociology 73 (January 1968): 453-467.

_____. On the Nature of Organizations. New York: Wiley-Interscience, 1974.

Blau, Peter M. and Schoenherr, Richard A. The Structure of Organizations. New York: Basic Books, 1971.

Blau, Peter M., and Scott, William R. Formal Organizations. San Francisco: Chandler, 1962.

Boggs, Sarah L., and Galliher, John F. "Evaluating the Police: A Comparison of Black Street and Household Respondents." Social Problems 22 (February 1975): 393-406.

Bons, Paul M., and Fiedler, Fred E. "Changes in Organizational Leadership and the Behavior of Relationship- and Task-Motivated Leaders." Administrative Science Quarterly 21 (September 1976): 453-473.

Booth, Alan, and Bisztray, Gunhild. "Value Orientations, Member Integration and Participation in Voluntary Association Activities." Administrative Science Quarterly 15 (March 1970): 39-45.

Bordua, David J. (ed.). The Police: Six Sociological Essays. New York: Wiley and Sons, 1967.

Bordua, David J., and Haurek, Edward. "The Police Budget's Lot: Components of the Increase in Local Police Expenditure, 1902-1960." In Police in Urban Society, pp. 57-70. Edited by Harlan Hahn. Beverly Hills, Calif.: Sage, 1971.

Bordua, David J., and Reiss, Albert J., Jr. "Command, Control, and Charisma: Reflections on Police Bureaucracy." American Journal of Sociology 72: (July 1966): 68-76.

Bordua, David J., and Tifft, Larry L. "Citizen Interviews, Organizational Feedback, and Police-Community Relations Decisions." Law and Society Review 6 (November 1971): 155-182.

Boss, R. Wayne; Allhiser, Gary L.; and Voorhis, David J. "The Impact of Pay and Job Security on Organizational Climate." Journal of Police Science and Administration 7 (September 1979): 361-367.

Boston University Center for Criminal Justice. Police Policymaking to Structure Discretion: The Boston Experience. Boston: Boston University Center for Criminal Justice, 1978.

Bowers, David G., and Seashore, Stanley E. "Predicting Organizational Effectiveness with a Four-Factor Theory of Leadership." Administrative Science Quarterly 11 (September 1966): 238-263.

Bozza, Charles M. "Motivations Guiding Policemen in the Arrest Process." Journal of Police Science and Administration 1 (December 1973): 468-476.

Brenner, Arline R., and Levin, James M. "Off-Duty Policemen and Bystander 'Apathy.'" Journal of Police Science and Administration 1 (March 1973): 61-64.

Bridges, Edwin M., Doyle, Wayne J., and Mahair, David J. "Effects of Hierarchical Differentiation on Group Productivity, Efficiency and Risk-Taking." Administrative Science Quarterly 13 (September 1968): 305-319.

Brown, Michael E. "Identification and Some Conditions of Organizational Involvement." Administrative Science Quarterly 14 (September 1969): 346-355.

Browne, William P. "Resource Needs and Attitudes towards Financial Allocation: A Study of Suburban Police Chiefs." Public Administration Review 34 (July/August 1974): 397-399.

Buchanan, Bruce, II. "Building Organizational Committment: The Socialization of Managers in Work Organizations." Administrative Science Quarterly 19 (December 1974): 533-546.

Buren, R. Michael. "A Police Management Training Program: Efficient Use of Man and Money?" Journal of Police Science and Administration 1 (September 1973): 294-302.

Burns, Tom, and Stalker, G.M. The Management of Innovation. London: Tavistock, 1961.

Caplan, Gerald. "The Case for Rulemaking by Law Enforcement Agencies." Law and Contemporary Problems 36 (Autumn 1971): 500-514.

Carlson, Helene; Thayer, Robert E.; and Germann, A.C. "Social Attitudes and Personality Differences among Members of Two Kinds of Police Departments (Innovative vs. Traditional) and Students." Journal of Criminal Law, Criminology, and Police Science 62 (1971): 564-567.

Carpenter, Harrell H. "Formal Organizational Structural Factors and Perceived Job Satisfaction of Classroom Teachers." Administrative Science Quarterly 16 (December 1971): 460-475.

Carroll, Stephan J., and Tosi, Henry L. "Goal Characteristics and Personality Factors in a Management-by-Objectives Program." Administrative Science Quarterly 15 (September 1970): 295-305.

Carte, Gene E. "Technology versus Personnel: Notes on the History of Police Professional Reform." Journal of Police Science and Administration 4 (September 1976): 285-297.

Carter, E. Eugene. "The Behavioral Theory of the Firm and Top-Level Corporate Decisions." Administrative Science Quarterly 16 (December 1971): 413-428.

Carzo, Rocca, and Yanouzas, John N. "Effects of Flat and Tall Organizational Structure." Administrative Science Quarterly 2 (June 1969): 178-191.

Cascio, Wayne F. "Formal Education and Police Officer Performance." Journal of Police Science and Administration 5 (March 1977): 89-96.

Chackerian, Richard. "Police Professionalism and Citizen Evaluations: A Preliminary Look." In Classes, Conflict and Control, pp. 490-503. Edited by Jim Munro. Cincinnati: Anderson, 1976.

Chackerian, Richard, and Barrett, Richard F. "Police Professionalization and Citizen Evaluation: Research Note." Urban Affairs Quarterly 8 (March 1973): 345-349.

Chang, Dae H., and Zastrow, Charles H. "Police Evaluative Perceptions of Themselves, the General Public and Selected Occupational Groups." Journal of Criminal Justice 4 (Spring 1976): 17-27.

Child, John. "Strategies of Control and Organizational Behavior." Administrative Science Quarterly 18 (March 1973a): 1-17.

_____. "Predicting and Understanding Organization Structure." Administrative Science Quarterly 18 (June 1973b): 168-185.

_____. "Parkinson's Progress: Accounting for the Number of Specialists in Organizations." Administrative Science Quarterly 18 (September 1973c): 328-348.

Christenson, James A., and Sachs, Carolyn E. "The Impact of Government Size and Number of Administrative Units on the Quality of Public Services." Administrative Science Quarterly 25 (March 1980): 89-101.

Chwast, Jacob. "Value Conflicts in Law Enforcement." Crime and Delinquency 11 (April 1965): 151-161.

Cizanckas, Victor I., and Purviance, Carlton W. "Changing Attitudes of Black Youths." Police Chief 40 (March 1973): 42-44.

Clark, John P. "Isolation of the Police: A Comparison of the British and American Situations." Journal of Criminal Law, Criminology and Police Science (September 1965): 307-319.

Clark, Peter B., and Wilson, James Q. "Incentive Systems." Administrative Science Quarterly 6 (September 1961): 129-166.

Coates, Charles H., and Pellegrin, Roland J. "Executives and Supervisors: Informal Factors in Differential Bureaucratic Promotion." Administrative Science Quarterly 2 (September 1957): 200-215.

Cochran, Nancy. "Authority Orientations of Police Officers." Journal of Applied Psychology 60 (October 1975): 641-643.

Cochrane, Raymond, and Butler, Anthony J.P. "The Values of Police Officers, Recruits, and Civilians in England." Journal of Police Science and Administration 8 (June 1980): 205-211.

Cohen, Arthur M.; Robinson, Ernest L.; and Edwards, Jack L. "Experiments in Organizational Embeddedness." Administrative Science Quarterly 14 (June 1969): 208-221.

Cohen, Bernard. "Police Internal Systems of Justice in New York City." Journal of Criminal Law, Criminology and Police Science 63 (March 1972): 54-67.

_____. "Police Career Paths and Managerial Performance." Journal of Police Science and Administration 6 (December 1978): 43-50.

_____. "Leadership Styles of Commanders in the New York City Police Department." Journal of Police Science and Administration 8 (June 1980): 125-238.

Cohen, Bernard, and Chaiken, Jan M. Police Background Characteristics and Performance. New York: Rand, 1972.

Cohen, Fay G. "The Indian Patrol in Minneapolis: Social Control and Social Change in a Urban Context." Law and Society Review 7 (Summer 1973): 779-786.

Colarelli, Nick J., and Siegel, Saul M. "A Method of Police Personnel Selection." Journal of Criminal Law, Criminology and Police Science 55 (June 1964): 287-289.

Cole, Nathan, and Gamble, Darwin. "Economics, Politics, and Police Policy." Journal of Police Science and Administration 7 (March 1979): 116-120.

Colton, Kent. Police Computer Technology. Lexington, Mass.: Lexington Books, D.C. Heath and Co., 1978.

Comstock, Donald, and Scott, W. Richard. "Technology and the Structure of Subunits: Distinguishing Individual and Workgroup Effects." Administrative Science Quarterly 22 (June 1977): 177-202.

Cook, Thomas D., and Campbell, Donald T. Quasi-Experimentation Design and Analysis Issues for Field Settings. Chicago: Rand McNally, 1979.

Cooper, Terry L. "Professionalization and Unionization of Police: A Delphi Forcast on Police Values." Journal of Criminal Justice 2 (Spring 1974): 19-35.

Corbett, Michael; Meyer, Fred; Baker, Ralph; and Rudoni, Dorothy. "Conflict, Consensus, and Perceptions of Support among the Police." Journal of Police Science and Administration 7 (December 1979): 449-458.

Cordner, Gary W. "A Review of Work Motivation Theory and Research for the Police Manager." Journal of Police Science and Administration 6 (September 1978): 286-292.

Coulter, Philip B. "Organizational Effectiveness in the Public Service Sector: The Example of Municipal Fire Protection." Administrative Science Quarterly 24 (March 1979): 65-81.

Crawford, Thomas J. "Police Overperception of Ghetto Hostility." Journal of Police Science and Administration 1 (June 1973): 168-174.

Crosby, Andrew. "The Psychological Examination in Police Selection." Journal of Police Science and Administration 7 (June 1979): 215-229.

Cross, Arthur C., and Hammond, Kenneth R. "Social Differences between 'Successful' and 'Unsuccessful' State Highway Patrolmen." Public Personnel Review 12 (July 1951): 159-161.

Crozier, Michael. The Bureaucratic Phenomena. Chicago: University of Chicago Press, 1964.

Culbertson, Robert G. "Occupational Choice, Corrections or Law Enforcement: A Comparison on the Basis of Dogmatism." Journal of Police Science and Administration 3 (January 1975).

Culver, John H. "Policing the Police: Problems and Perspectives." Journal of Police Science and Administration 3 (June 1975): 125-135.

Cumming, Elaine; Cumming, Ian M.; and Edell, Laura. "Policeman as Philosopher, Guide and Friend," Social Problems 12 (Winter 1965): 276-285.

Cummings, Larry L., and El Salmi, Aly M. "The Impact of Role Diversity, Job Level, and Organizational Size on Managerial Satisfaction." Administrative Science Quarterly 15 (March 1970): 1-10.

Cyert, Richard M., and March, James G. The Behavioral Theory of the Firm. Englewood Cliffs, N.J.: Prentice-Hall, 1963.

Dalley, A.F. "University vs. Non-University Graduated Policemen: A Study of Police Attitudes." Journal of Police Science and Administration 3 (December 1975): 458-468.

Darkenwald, Gordon G., Jr. "Organizational Conflict in Colleges and Universities." Administrative Science Quarterly 16 (December 1971): 407-412.

Decker, Scott H. "Official Crime Rates and Victim Surveys: An Empirical Comparison." Journal of Criminal Justice 5 (1977): 47-54.

Denton, Charles F. "Bureaucracy in an Immobilist Society: The Case of Costa Rica." Administrative Science Quarterly 14 (September 1969): 418-425.

Dewar, Robert, and Werbel, James. "Universalistic and Contingency Predictions of Employee Satisfaction and Conflict." Administrative Science Quarterly 24 (September 1974): 426-448.

Dewar, Robert D.; Whetten, David A.; and Boje, David. "An Examination of the Reliability and Validity of the Aiken and Hage Scales of Centralization, Formalization, and Task Routineness." Administrative Science Quarterly 25 (March 1980): 120-128.

Dill, William R. "Environment as an Influence on Managerial Autonomy." Administrative Science Quarterly 2 (March 1958): 409-443.

Dimieri, Thomas J. "Dialectics of Police Reform: A Case Study of Planned Change in the New York Police Department." Ph.D. Dissertation, Brown University, 1976.

Doyle, Wayne J. "Effects of Achieved Status of Leader on Productivity of Groups." Administrative Science Quarterly 16 (March 1971): 40-49.

Drucker, Peter F. Management: Tasks, Responsibilities, Practices. New York: Harper and Row, 1974.

DuBois, Philip H., and Watson, Robert I. "The Selection of Patrolmen." Journal of Applied Psychology 34 (April 1950): 90-95.

Dukes, Richard L., and Alpert, Geoffrey P. "Criminal Victimization from a Police Perspective." Journal of Police Science and Administration 8 (March 1980): 21-30.

Duncan, Robert B. "Characteristics of Organizational Environments and Perceived Environmental Uncertainty." Administrative Science Quarterly 17 (September 1972a): 313-327.

_____. "Organizational Climate and Climate for Change in Three Police Departments." Urban Affairs Quarterly 8 (December 1972b): 205-245.

_____. "Multiple Decision-making Structures in Adapting to Environmental Uncertainty: The Impact on Organizational Effectiveness." Human Relations 26 (June 1973): 273-291.

Eastman, George D., and Eastman, Esther M. Municipal Police Administration. Washington, D.C.: International City Managers Association, 1969.

Eastman, George D., and McCain, James A. "Police Managers and Their Perceptions of Higher Education." Journal of Criminal Justice 1 (Summer 1973): 113-124.

Edelstein, J. David, and Ruppel, Howard J., Jr. "Convention Frequency and Oligarchic Degeneration in British and American Unions." Administrative Science Quarterly 15 (March 1970): 47-56.

Elling, Ray H., and Halebsky, Sandor. "Organizational Differentiation and Support: A Conceptual Framework." Administrative Science Quarterly 6 (September 1961): 185-209.

Elliott, J. F. "Crime Control Teams: An Alternative to the Conventional Procedure of Investigating Crimes." Journal of Criminal Justice 6 (Spring 1978): 11-23.

Elliott, J. F.; O'Connor, John F.; and Sardino, Thomas J. "Environmental Evaluation of the Crime Control Team Organization Concept." Police 14 (May/June 1970): 44-53.

Emery, F. E., and Trist, E. L. "The Causal Texture of Organizational Environments." Human Relations 18 (February 1965): 21-31.

Engel, Gloria V. "Professional Autonomy and Bureaucratic Organization." Administrative Science Quarterly 15 (March 1970): 12-21.

Ermer, Virginia. "Recruitment of Female Police Officers in New York City." Journal of Criminal Justice 6 (Fall 1978): 233-246.

Etzioni, Amitai. A Comparative Analysis of Complex Organizations. New York: Free Press, 1961.

Evan, William M. "Superior-Subordinate Conflict in Research Organizations." Administrative Science Quarterly 10 (June 1965): 52-64.

Evan, William M., and Simmons, Roberta G. "Organizational Effects of Inequitable Rewards: Two Experiments in Status Inconsistency." Administrative Science Quarterly 14 (June 1969): 224-237.

Fabianic, David A. "Authoritarianism in Criminal Justice Literature." Journal of Police Science and Administration 7 (March 1979): 53-64.

Fairweather, George W., and Tounatzky, Louis G. Experimental Methods for Social Policy Research. New York: Pergamon, 1977.

Farmer, Richard E. "Internships in Police Higher Education: An Evaluation." Journal of Police Science and Administration 6 (December 1978): 452-461.

Fayol, Henri. General and Industrial Management. Translated by Constance Storrs. London: Pitman, 1949.

Ferdinand, Theodore N. "From a Service to a Legalistic Style Police Department: A Case Study." Journal of Police Science and Administration 4 (September 1976): 302-319.

Ferdinand, Theodore N., and Luchterhand, Elmer G. "Inner-city Youth, the Police, the Juvenile Court, and Justice." Social Problems 17 (Spring 1970): 510-527.

Fiedler, Fred E. "The Contingency Model: A Theory of Leadership Effectiveness." pp. 538-551. In Basic Studies in Social Psychology. Edited by Harold M. Proshansky and Bernard Seidenberg, New York: Holt, Rinehart and Winston, 1965.

Feuille, Peter, and Juris, Hervey A. "Police Professionalism and Police Unions." Sociology of Work and Occupations 3 (February 1976): 88-113.

Finckenauer, James O. "Higher Education and Police Discretion." Journal of Police Science and Administration 3 (December 1975): 450-457.

_____. "Some Factors in Police Discretion and Decision Making." Journal of Criminal Justice 4 (Spring 1976): 29-46.

Flynn, J. T., and Peterson M. "The Use of Regression Analysis in Police Patrolman Selection." Journal of Criminal Law, Criminology, and Police Science 63 (December 1972): 564-569.

Fouraker, Lawrence E., and Stopford, John J. "Organizational Structure and the Multinational Strategy." Administrative Science Quarterly 13 (June 1968): 47-64.

Franklin, Jerome L. "Down the Organization: Influence Processes Across Levels of Hierarchy." Administrative Science Quarterly 20 (June 1975): 153-164.

Franko, Lawrence G. "The Move toward a Multidivisional Structure in European Organizations." Administrative Science Quarterly 4 (December 1974): 493-506.

Frederickson, H. George. "Role Occupancy and Attitudes toward Labor Relations in Government." Administrative Science Quarterly 14 (December 1969): 595-606.

Freeman, John. "Going to the Well: School District Administrative Intensity and Environmental Constraint." Administrative Science Quarterly 24 (March 1979): 119-128.

Friedlander, Frank, and Pickle, Hal. "Components of Effectiveness in Small Organizations." Administrative Science Quarterly 13 (September 1968): 289-304.

Furcon, John E.; Froemel, Ernest C.; and Baehr, Melaney E. "Psychological Predictors and Patterns of Patrolman Field Performance," pp. 53-65. In The Urban Policeman in Transition. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.: Charles C. Thomas, 1973.

Furcon, John; Froemel, Ernest C.; Franczak, Ronald G.; and Baehr, Melany E. "Longitudinal Study of Psychological Test Predictors and Assessments of Patrolman Field Performance." LEAA Grant No. NI-69-010. Chicago, 1971. (Mimeographed.)

Furstenberg, Frank F., and Wellford, Charles F. "Calling the Police: The Evaluation of Police Service." Law and Society Review 7 (Spring 1973): 393-406.

Gabler, L. R. "Population Size as a Determinant of City Expenditures and Employment--Some Further Evidence." Land Economics 2 (May 1971): 130-138.

Gamson, William A., and Yuchtman, Ephraim. "Police and Society in Israel." In Police and Society, pp. 195-218. Edited by David H. Bayley. Beverly Hills, Calif.: Sage, 1977.

Gardiner, John A. "Police Enforcement of Traffic Laws: A Comparative Analysis." In City Politics and Public Policy. Edited by James Q. Wilson, New York: John Wiley and Sons, 1968.

Gentel, William D., and Handman, Martha L. Police Strikes: Causes and Prevention. Gaithersburg, Md.: International Association of Chiefs of Police, 1979.

Genz, John L., and Lester, Daivd. "Authoritarianism in Policemen as a Function of Experience." Journal of Police Science and Administration 4 (March 1976): 9-13.

George, Julius R., and Bishop, Lloyd K. "Relationship of Organizational Structure and Teacher Personality Characteristics to Organizational Climate." Administrative Science Quarterly 16 (December 1971): 467-475.

Gerth, Hans Henrich, and Mills, C. Wright, Eds. From Max Weber: Essays in Sociology. New York: Oxford University Press, 1946.

Goldstein, Herman. Policing a Free Society. Cambridge, Mass.: Ballinger, 1977.

Goldstein, Joseph. "Police Discretion Not to Invoke the Criminal Process: Low Visibility Decisions in the Administration of Justice." Yale Law Journal 69 (March 1960): 556-562.

Golembiewski, Robert T., and Carrigan, Stokes B. "Planned Change in Organization Style Based on Laboratory Approach." Administrative Science Quarterly 15 (March 1970a): 79-93.

_____. "The Persistence of Laboratory-Induced Changes in Organization Styles." Administrative Science Quarterly (September 1970b): 330-340.

Goodgame, Doug. "Training Priorities for First-Line Supervisors in Municipal Law Enforcement: A Contrast of Opinions." Journal of Police Science and Administration 6 (June 1978): 184-195.

Gottfredson, Michael R., and Hindelang, Michael J. "A Consideration of Telescoping and Memory Decay Biases in Victimization Surveys." Journal of Criminal Justice 5 (1977): 205-216.

Grant, Michael G. "The Relationship of Moonlighting to Job Dissatisfaction in Police Officers." Journal of Police Science and Administration 5 (June 1977): 193-196.

Green, Justin J. "Influence of Administrative Reform on the Immigration and Naturalization Service." Administrative Science Quarterly 15 (September 1970): 353-359.

Greene, Charles N., and Organ, Dennis W. "Evaluation of Causal Models Linking the Perceived Role with Job Satisfaction." Administrative Science Quarterly 18 (March 1973): 95-103.

Greisinger, George W.; Slovak, Jeffrey S.; and Molkup, Joseph J. Civil Service Systems: Their Impact on Police Administration. NILEJC Grant No. 76-NI-99-0140. Washington, D.C.: Public Administration Service, 1979.

Greytak, David. "The Budgetary Effects of Inflation: A Case Study of Expenditures for Police Services." Journal of Police Science and Administration 3 (December 1975): 482-485.

Griffeth, Roger W., and Cafferty, Thomas P. "Police and Citizen Value Systems: Some Cross-Sectional Comparisons." Journal of Applied Psychology 7, Vol. 62 (1977): 191-204.

Griffin, Gerald R.; Dunbar, Roger L. M.; and McGill, Michael E. "Factors Associated with Job Satisfaction among Police Personnel." Journal of Police Science and Administration 6 (March 1978): 77-85.

Groves, W. Eugene, and Rossi, Peter. "Police Perceptions of a Hostile Ghetto." American Behavioral Scientist 13 (August 1972): 727-743.

Grusky, Oscar. "Succession with an Ally." Administrative Science Quarterly 2 (June 1969): 155-170.

Gulick, Luther Halsley, and Urwick, Lyndall, Eds. Papers on the Science of Administration. New York: Columbia University Press, 1937.

Guller, Irving B. "Higher Education and Policemen: Attitudinal Differences between Freshman and Senior College Students." Journal of Criminal Law, Criminology and Police Science 63 (September 1972): 396-401.

Guyot, Dorothy. "Bending Granite: Attempts to Change the Rank Structure of American Police Departments." Journal of Police Science and Administration 7 (September 1979): 253-284.

Hage, Jerald, and Aiken, Michael. "Relationship of Centralization to Other Structural Properties." Administrative Science Quarterly 12 (June 1967): 72-92.

_____. "Routine Technology, Social Structure, and Organizational Goals.: Administrative Science Quarterly 14 (September 1969): 366-375.

Hage, Jerald, and Dewar, Robert. "Elite Values versus Organizational Structure in Predicting Innovation." Administrative Science Quarterly 18 (September 1973): 279-290.

Hageman, Mary Jeanette C. "Occupational Stress and Marital Relationships." Journal of Police Science and Administration 6 (December 1978): 402-412.

_____. "Who Joins the Force for What Reasons: An Argument for 'The New Breed.'" Journal of Police Science and Administration 7 (June 1979): 206-210.

Hahn, Harlan. "Ghetto Assessments of Police Protection and Authority." Law and Society Review 6 (November 1971): 183-194.

Hall, Douglas T., and Lawler, Edward E. "Job Characteristics and Pressures and the Organizational Integration of Professionals." Administrative Science Quarterly 15 (September 1970): 271-281.

Hall, Douglas T., and Mansfield, Roger. "Organizational and Individual Response to External Stress." Administrative Science Quarterly 16 (December 1971): 533-547.

Hall, Richard H. "Intraorganizational Structural Variation: Application of the Bureaucratic Model." Administrative Science Quarterly 7 (December 1962): 295-308.

_____. "Some Organizational Considerations in the Professional Organizational Relationship." Administrative Science Quarterly 12 (December 1967): 461-478.

_____. "Professionalization and Bureaucratization." American Sociological Review 33 (February 1968): 92-104.

_____. Occupations and the Social Structure. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

Haller, Mark H. "Civic Reformers and Police Leadership: Chicago 1905-1935." In Police in Urban Society, pp. 39-56. Edited by Harlan Hahn. Beverly Hills, Calif.: Sage, 1971.

Halpern, Stephen C. "Police Employee Organizations and Accountability Procedures in Three Cities: Some Reflections on Police Policy-making." Law and Society Review 8 (Summer 1974): 561-582.

Harring, Sidney I. "Class Conflict and the Suppression of Tramps in Buffalo, 1892-1894." Law and Society Review 11 (Summer 1977): 873-908.

Harrison, Frank. "Bureaucratization: Perceptions of Role Performance and Organizational Effectiveness." Journal of Police Science and Administration 3 (September 1975): 319-326.

Hatry, Harry P.; Clarren, Sumner N.; van Houten, Therese; Woodward, Jane P.; and DonVito, Pasqual A. Efficiency Measurement for Local Government Services: Some Initial Suggestions. Washington, D.C.: Urban Institute, 1979.

Hawkins, Richard O. "Who Called the Cops?: Decisions to Report Criminal Victimization." Law and Society Review 7 (Spring 1973): 427-444.

Herzberg, Frederick. Work and the Nature of Man. Cleveland: World Publishing, 1966.

Herzberg, Frederick; Mausner, Bernard; Peterson, R.; and Capwell, D. F. Job Attitudes: Review of Research and Opinion. Pittsburgh, Pa.; Psychological Services of Pittsburgh, 1957.

Herzberg, Frederick; Mausner, Bernard; and Snyderman, Barbara. The Motivation to Work. New York: John Wiley and Sons, 1959.

Heydebrand, Wolf V., Ed. Comparative Organizations: The Results of Empirical Research. Englewood, N.J.: Prentice-Hall, 1973.

Heydebrand, Wolf V., and Noell, James J. "Task Structure and Innovation in Professional Organizations." In Comparative Organizations: The Results of Empirical Research, pp. 294-321. Edited by Wolf V. Heydebrand. Englewood Cliffs, N.J.: Prentice-Hall, 1973.

Higgin, Timothy. "A Needs- Goals Assessment of a Government Organization (Police Department) from a General Systems Perspective." Ph.D. Dissertation, University of Tennessee, Knoxville, 1976.

Hill, Winston W., and French, Wendell L. "Perceptions of the Power of Department Chairmen by Professors." Administrative Science Quarterly 11 (March 1967): 548-574.

Hirsch, Paul M. "Organizational Effectiveness and the Institutional Environment." Administrative Science Quarterly 20 (September 1975): 327-344.

Hirsch, Werner Z. "Expenditure Implications of Metropolitan Growth and Consolidation." Review of Economics and Statistics 41 (August 1959): 232-241.

Hogan, Robert. "Personality Characteristics of Highly Rated Policemen." Personnel Psychology 24: 679-686.

House, Robert J. "A Path Goal Theory of Leader Effectiveness." Administrative Science Quarterly 16 (September 1971): 321-338.

House, Robert J.; Filley, Alan C.; and Kerr, Steven. "Relation of Leader Consideration and Initiating Structure to R and D Subordinates' Satisfaction." Administrative Science Quarterly 16 (March 1971): 19-30.

House, Robert J., and Wigdon, Lawrence A. "Herzberg's Dual Factor Theory of Job Satisfaction and Motivation: A Review of the Evidence and a Criticism" In Readings in Organization Behavior and Human Performance. Edited by L. L. Cummings and W. E. Scott. Homewood, Ill.: Richard D. Irwin, Inc. 1969.

Hrebiniak, Lawrence G. "Job Technology, Supervision and Work-Group Structure." Administrative Science Quarterly 19 (September 1974): 395-410.

Hrebiniak, Lawrence, and Alutto, Joseph A. "A Comparative Organizational Study of Performance and Size Correlates in Inpatient Psychiatric Departments." Administrative Science Quarterly 18 (September 1973): 365-382.

Hudson, James. "Police-Citizen Encounters that Lead to Citizen Complaints." Social Problems 18 (Fall 1970): 179-193.

Hudzik, John K. "College Education for Police: Problems in Measuring Component and Extraneous Variables." Journal of Criminal Justice 6 (Spring 1978): 69-81.

Hunt, Isaac C., Jr., and Cohen, Bernard. Minority Recruiting in the New York City Police Department. New York: The Rand Corporation, 1970.

Hunt, J. G. "Leadership Style Effects at Two Managerial Levels in a Simulated Organization." Administrative Science Quarterly 16 (December 1971): 476-485.

Indik, Bernard P. "The Relationship between Organization Size and Supervision Ratio." Administrative Science Quarterly 9 (December 1964): 301-312.

Inkson, J. H. K.: Hickson, D. J.; and Pugh, D. S. "Administrative Reduction of Variance in Organization and Behavior." Paper presented to the British Psychological Society, Annual Conference, April 1968.

_____. "Organization Context and Structure: An Abbreviated Replication." Administrative Science Quarterly 15 (September 1970): 318-329.

International Association of Chiefs of Police. Police Discipline Series: Rules, Procedures, Supportive Law and Effective Management Systems. Gaithersburg, Md.: International Association of Chiefs of Police, 1976.

Ishak, Samir Twefik. "Metropolitan Police Departments: The Citizens' Input." Allendale, Michigan, 1973.

Ivancevich, John M. "Changes in Performance in a Management by Objectives Program." Administrative Science Quarterly 19 (December 1974): 563-574.

Ivancevich, John M., and Donnelly, James H., Jr. "Relation of Organizational Structure to Job Satisfaction, Anxiety-Stress, and Performance." Administrative Science Quarterly 20 (June 1975): 272-280.

Jacob, Herbert. "Black and White Perceptions of Justice in the City." Law and Society Review 6 (August 1971): 69-89.

Jacobs, James B., and Cohen, Jay. "The Impact of Racial Integration of the Police." Journal of Police Science and Administration 6 (June 1978): 168-183.

Jacques, Jeffrey M., and Mutchnick, Robert J. "Familism, Reference Groups, and Family Satisfaction among Police Officers." Journal of Police Science and Administration 7 (June 1979): 179-185.

Jenkins, J. Craig. "Radical Transformation of Organizational Goals." Administrative Science Quarterly 22 (December 1977): 568-586.

Jermier, John M., and Berkes, Leslie J. "Leader Behavior in a Police Command Bureaucracy: A Closer Look at the Quasi-Military Model." Administrative Science Quarterly 24 (March 1979): 1-23.

Johnson, Knowlton. Police Interagency Relations: Some Research Findings. Administrative and Policy Study Series, No. 4. Beverly Hills, Calif.: Sage Publications, 1977.

Johnson, Thomas A. "A Study of Police Resistance to Police Community Relations in a Municipal Police Department." Ph.D. dissertation, the University of California, Berkely, 1970.

Johnson, Weldon T.; Petersen, Robert E.; and Wells, L. Edward. "Arrest Possibilities for Marijuana Users Indicators of Selective Law Enforcemnt." American Journal of Sociology 83 (November 1977): 681-699.

Jones, E. Terrence. "Crime Change Patterns in American Cities." Journal of Criminal Justice 4 (Winter 1976): 333-340.

Joseph, Nathan and Alex, Nicholas. "The Uniform: A Sociological Perspective." American Journal of Sociology 77 (December 1971): 719-730.

Juris, Hervey A. "The Implication of Police Unionism." Law and Society Review 6 (November 1971): 231-245.

Juris, Hervey A., and Feuille, Peter. The Impact of Police Unions. Grant Report, NILECJ Study No. NI-70-044. Washington, D.C.: Government Printing Office, 1973. (Mimeographed.)

Kaczka, Eugene E., and Kirk, Roy V. "Managerial Climate, Work Groups and Organizational Performance." Administrative Science Quarterly 12 (September 1967): 253-272.

Kahn, Robert L. "Productivity and Job Satisfaction," In Psychology in Administration, pp. 98-105. Edited by Timothy W. Costello and Sheldon S. Zalkind. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963.

Katz, Daniel. "The Functional Approach to the Study of Attitudes." In Psychology and Administration. Edited by Timothy W. Costello and Sheldon S. Zalkind. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963.

Katz, Daniel, and Kahn, Robert L. The Social Psychology of Organizations. New York: John Wiley, 1966.

Katz, Fred E. "Explaining Informal Work Groups in Complex Organizations: The Case for Autonomy in Structure." Administrative Science Quarterly 10 (September 1965): 204-223.

Kaufman, Herbert, and Seidman, David. "The Morphology of Organizations." Administrative Science Quarterly 15 (December 1970): 439-451.

Kavanagh, Michael J. "Leadership Behavior as a Function of Subordinate Competence and Task Complexity." Administrative Science Quarterly 17 (December 1972): 591-600.

Kavčič, Bogdan; Rus, Veljko; and Tannenbaum, Arnold S. "Control, Participation, and Effectiveness in Four Yugoslav Industrial Organizations." Administrative Science Quarterly 16 (March 1971): 74-86.

Kelling, George; Pate, Tony; Dieckmann, Duane; and Brown, Charles E. The Kansas City Preventive Patrol Experiment: A Technical Report. Washington, D.C.: The Police Foundation, 1974.

Kelly, Joseph A., and O'Rourke, Thomas W. "An Appraisal of the Attitudes of Police Officers toward the Concept of Police-Community Relations." Journal of Police Science and Administration 1 (June 1973): 224-231.

Kelly, Rita Mae. "Generalizations from an OEO Experiment in Washington, D.C." Journal of Social Issues, Vol. 31, No. 1 (1975): 57-86.

Kelly, Rita Mae, and West, Gorman, Jr. "The Racial Transition of a Police Force: A Profile of White and Black Patrolmen in Washington, D.C." In The Urban Police in Transition, pp. 354-381. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.: Charles C. Thomas, 1973.

Kenney, John P. Police Administration. Springfield, Ill.: Charles C. Thomas, 1972.

Kimberly, John R., and Nielsen, Warren R. "Organization Development and Change in Organizational Performance." Administrative Science Quarterly 20 (June 1975): 191-206.

Klatzky, S. R. "Relationship of Organizational Size to Complexity and Coordination." Administrative Science Quarterly 15 (December 1970): 428-438.

Klein, Stuart M.; Kraut, Allen I.; and Wolfson, Alan. "Employee Reactions to Attitude Survey Feedback: A Study of the Impact of Structure and Process." Administrative Science Quarterly 16 (December 1971): 497-514.

Klyman, Fred I. "The Police-Community Relations Survey: A Quantitative Inventory of Services and Work Units." Journal of Police Science and Administration 2 (March 1974): 77-81.

Klyman, Fred I., and Kruckenberg, Joanna. "A Methodology for Assessing Citizen Perceptions of Police." Journal of Criminal Justice 2 (Fall 1974): 219-233.

_____. "A National Survey of Police-Community Relations Units." Journal of Police Science and Administration 7 (March 1979): 72-79.

Knowles, Patrick, and Peterson, Rolf. "Measurement of Flexibility in State Police Officers." Journal of Police Science and Administration 1 (June 1973): 219-223.

Kroes, William M.; Hurrell, Joseph J., Jr.; and Margolis, Bruce. "Job Stress in Police Administrators." Journal of Police Science and Administration 2 (December 1974): 381-387.

Kuykendall, Jack L., and Unsinger, Peter C. Community Police Administration. Chicago: Nelson-Hall, 1975.

La Kind, Elizabeth D.; Sussman, David W.; and Gross, Richard. "Knowledge of Police and Court Procedures and Respect for the Law: A Survey." Journal of Criminal Justice 5 (Winter 1977): 329-338.

Lammers, Cornelis J. "Strikes and Mutinies: A Comparative Study of Organizational Conflicts between Rulers and Ruled." Administrative Science Quarterly 14 (December 1969): 558-572.

Landy, Frank J. "The Validity of the Interview in Police Officer Selection." Journal of Applied Psychology 61 (April 1976): 193-198.

Landy, Frank, and Farr, James. Performance Appraisal for Police Patrol Officers: A Manual for Personnel Officers. University Park, Pa.: Pennsylvania State University, 1975.

Lawrence, Paul R., and Lorsch, Jay W. "Differentiation and Integration in Complex Organizations." Administrative Science Quarterly 12 (June 1967): 1-47.

_____. Organization and Environment. Homewood, Ill.: Irwin, 1969.

Leavitt, Harold J., Ed. The Social Science of Organizations: Four Perspectives; Henry A. Latané, David Mechanic, George Strauss, George B. Strother. Englewood Cliffs, N. J.: Prentice-Hall, 1963.

Lefkowitz, Joel. "Evaluation of a Supervisory Training Program for Police Sergeants." Personnel Psychology 25 (Spring 1972): 95-106.

_____. "Attitudes of Police toward Their Job." In The Urban Police in Transition, pp. 203-232. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.: Charles C. Thomas, 1973.

_____. "Psychological Attributes of Policemen: A Review of Research and Opinions." Journal of Social Issues 31 (Winter 1975): 3-26.

Leifer, Richard, and Delbecq, Andre. "Organizational/Environmental Interchange: A Model of Boundary Spanning Activity." Academy of Management Review 3 (January 1978): 40-50.

Leifer, Richard, and Huber, George. "Relations among Perceived Environmental Uncertainty, Organizational Structure, and Boundary-Spanning Behavior." Administrative Science Quarterly 22 (June 1977): 235-247.

Leiren, Bjorn D. "Validating the Selection of Deputy Marshals." In The Urban Policeman in Transition, pp. 83-99. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.: Charles C. Thomas, 1973.

Lester, David, and Genz, John L. "Internal-External Locus of Control, Experience as a Police Officer, and Job Satisfaction in Municipal Police Officers." Journal of Police Science and Administration 6 (December 1978): 479-481.

Levine, James P. "Implementing Legal Policies through Operant Conditioning: A Case of Police Practices." Law and Society Review (November 1971): 195-222.

Levine, Margaret J., and Parker, Ronald H. "Performance Evaluation for Police Officers." South Carolina Law Enforcement Officers Association Magazine 1 (September/October 1980): 29-49.

Levins, James P. "Access to Urban Police Departments." Urban Affairs Quarterly 8 (June 1973): 515-520.

Levinson, Marc, and Distefano, M. K., Jr. "Effects of Brief Training on Mental Health Knowledge and Attitudes of Law Enforcement Officers." Journal of Police Science and Administration 7 (June 1979): 241-244.

Levy, Ruth J. "Predicting Police Failures." Journal of Criminal Law, Criminology and Police Science 58 (June 1967): 265-276.

_____. "A Method for Identification of the High-Risk Police Applicant." In The Urban Policeman in Transition, pp. 25-51. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.; Charles C. Thomas, 1973.

Lewis, Edward B., and Sullivan, Tommy T. "Combating Crime and Citizen Attitudes: A Study of the Corresponding Reality." Journal of Criminal Justice 7 (Spring 1979): 71-79.

Lewis, Lionel S. "On Prestige and Loyalty of University Faculty." Administrative Science Quarterly 11 (March 1967): 629-642.

Likert, Rensis. New Patterns of Management. New York: McGraw-Hill, 1961.

Lincoln, James R., and Miller, Jon. "Work and Friendship Ties in Organizations: A Comparative Analysis of Relational Networks." Administrative Science Quarterly 24 (June 1979): 181-198.

Litwak, Eugene. "Models of Bureaucracy Which Permit Conflict." American Journal of Sociology 67 (September 1961): 177-184.

Litwak, Eugene, and Hylton, Lydia F. "Interorganizational Analysis: A Hypothesis on Co-ordinating Agencies." Administrative Science Quarterly 7 (March 1962): 395-420.

Lotz, Roy, and Regoli, Robert M. "Police Cynicism and Professionalism." Human Relations 30 (1977): 175-186.

Lowin, Aaron; Hrapchak, William J.; and Kavanagh, Michael J. "Consideration and Initiating Structure: An Experimental Investigation of Leadership Traits." Administrative Science Quarterly 14 (June 1969): 238-253.

Luckham, A. R. "Institutional Transfer and Breakdown in a New Nation: The Nigerian Military." Administrative Science Quarterly 16 (December 1971): 387-405.

Luecke, David S. "The Professional as Organizational Leader." Administrative Science Quarterly 18 (March 1973): 86-94.

Lunden, Walter. "The Mobility of Chiefs of Police." Journal of Criminal Law, Criminology and Police Science 49 (July/August 1958): 178-183.

Lundman, Richard J. "Organizational Norms and Police Discretion: An Observational Study of Police with Traffic Law Violators." Criminology 17 (August 1979): 159-171.

Lundman, Richard J.; Sykes, Richard E.; and Clark, John P. "Police Control of Juveniles: A Replication." Journal of Research in Crime and Delinquency 15 (January 1978): 74-91.

Lundstedt, Sven. "Social Psychological Contributions to the Management of Law Enforcement Agencies." Journal of Criminal Law, Criminology and Police Science 56 (September 1965): 375-381.

Lynch, Gerald W. "Cooperation and Competition among Police Officers." Journal of Police Science and Administration 1 (September 1973): 319-335.

_____. "The Contributions of Higher Education to Ethical Behavior in Law Enforcement." Journal of Criminal Justice 4 (Winter 1976): 285-290.

McAllister, John A. "A Study of the Prediction and Measurement of Police Performance." Police 14 (March/April 1970): 58-64.

McEvoy, Donald W. The Police and Their Many Publics. Metuchen, N. J.: Scarecrow Press, 1976.

McGregor, Douglas. The Human Side of the Enterprise. New York: McGraw-Hill, 1960.

McKelvey, William W. "Exceptional Noncomplementarity and Style of Interaction between Professional and Organization." Administrative Science Quarterly 14 (March 1969): 21-32.

McNamara, John H. "Uncertainties in Police Work: The Relevance of Police Recruits' Background and Training." In The Police: Six Sociological Essays, pp. 163-252. Edited by David Bordua. New York: John Wiley and Son, 1967.

McPheters, Lee R. "Econometric Analysis of Factors Influencing Crime on the Campus." Journal of Criminal Justice 6 (Spring 1978): 47-52.

McPheters, Lee R., and Stronge, William G. "Testing for Seasonality in Reported Crime Data." Journal of Criminal Justice 1 (Summer 1973): 125-134.

McWhinney, W. H. "On the Geometry of Organizations." Administrative Science Quarterly 10 (December 1965): 347-362.

Macfarlane, Robert I. "Managing for Effective Discipline: Increasing Officer Confidence in Discipline--Part II." The Police Chief 43 (May 1976): 78-83.

Macfarlane, Robert I., and Crosby, Andrew. "Police Officer Discipline: A Study of Experience and Attitude." Journal of Police Science and Administration 41 (September 1976): 331-339.

Maltz, Michael D. "Crime Statistics: A Mathematical Perspective." Journal of Criminal Justice 3 (1975): 177-194.

Maniha, John K. "Universalism and Particularism in Bureaucratizing Organizations." Administrative Science Quarterly 20 (June 1975): 177-190.

Mansfield, Roger. "Bureaucracy and Centralization: An Examination of Organizational Structure." Administrative Science Quarterly 18 (December 1973): 477-488.

March, James. Handbook of Organizations. Chicago: Rand McNally, 1965.

March, James G., and Simon, Herbert A. Organizations. New York: John Wiley and Sons, 1958.

Marcus, Philip M., and House, James S. "Exchange between Superiors and Subordinates in Large Organizations." Administrative Science Quarterly 18 (June 1973): 209-223.

Marsh, Robert M., and Mannari, Hiroshi. "Organizational Commitment and Turnover: A Prediction Study." Administrative Science Quarterly 22 (March 1977): 95-113.

Marsh, Stewart. "Validating the Selection of Deputy Sheriffs." Public Personnel Review 23 (January 1962): 41-44.

Maslow, Abraham. Motivation and Personality. New York: Harper and Row Publishers, 1954.

Mayo, Elton. The Human Problems of an Industrialized Civilization. New York: Macmillan, 1933.

Merton, Robert K. Social Theory and Social Structure. Glencoe, Ill.: Free Press of Glencoe, 1957.

Meyer, C. Kenneth; Magedanz, Thomas C.; Kieselhorst, Daniel E.; and Chapman, Samuel C. "Violence and the Police: The Special Case of the Police Assailant." Journal of Police Science and Administration 7 (June 1979): 161-171.

Meyer, John C., Jr. "Police Attitudes and Performance Appraisal: The Forest and Some Trees." Journal of Police Science and Administration 1 (June 1973): 201-208.

_____. "Empirical Analysis of Police Service Tasks: Antecedent for Management Planning." Journal of Police Science and Administration 4 (September 1976): 264-273.

Meyer, John C., Jr., and Taylor, Winthrop E. "Analyzing the Nature of Police Involvements: A Research Note Concerning the Effects of Forms of Police Mobilization." Journal of Criminal Justice 3 (Summer 1975): 141-145.

Meyer, Marshall W. "The Two Authority Structures of Bureaucratic Organization." Administrative Science Quarterly 13 (September 1968): 212-228.

Miller, George A., and Wager, L. Wesley. "Adult Socialization, Organizational Structure, and Role Orientations." Administrative Science Quarterly 16 (June 1971): 151-163.

Miller, Jon. "Isolation in Organizations: Alienation from Authority, Control, and Expressive Relations." Administrative Science Quarterly 20 (June 1975): 260-271.

Miller, Jon, and Fry, Lincoln. "Reexamining Assumptions about Education and Professionalism in Law Enforcement." Journal of Police Science and Administration 4 (June 1976): 187-196.

_____. "Measuring Professionalism in Law Enforcement." Criminology 14 (November 1976): 401-413.

Mills, Robert B. "Simulated Stress in Police Recruit Selection." Journal of Police Science and Administration 4 (June 1976): 179-186.

Milton, Catherine. Women in Policing. Washington, D.C.: Police Foundation, 1972.

Mintzberg, Henry. The Structuring of Organizations: A Synthesis of the Research. Englewood Cliffs, N. J.: Prentice-Hall, 1979.

Misumi, Jyuji, and Seki, Fumiyasu. "Effects of Achievement Motivation on the Effectiveness of Leadership Patterns." Administrative Science Quarterly 16 (March 1971): 51-59.

Mohr, Lawrence B. "Organizational Technology and Organizational Structure." Administrative Science Quarterly 16 (December 1971): 444-459.

Molnar, Joseph J., and Rogers, David L. "A Comparative Model of Interorganizational Conflict." Administrative Science Quarterly 24 (September 1979): 405-424.

Moran, T. Kenneth. "Toward More Effective Control of Police Discretion: The Cooperative Model." Journal of Police Science and Administration 6 (September 1978): 253-263.

Morgan, David R., and Swanson, Cheryl. "Analyzing Police Policies: The Impact of Environment, Politics, and Crime." Urban Affairs Quarterly 11 (June 1976): 489-510.

Morgan, James P., Jr. "The Use of Age by Law Enforcement Policymakers as a Predictor of Performance." Journal of Police Science and Administration 8 (June 1980): 166-172.

Morris-Doran, Arlen. "Boundary Spanning in Criminal Justice--An Analysis." In Improving Management in Criminal Justice, pp. 115-129. Edited by Alvin Cohn and Benjamin Ward. Beverly Hills, Calif.: Sage, 1980.

Morse, Nancy. Satisfactions in the White Collar Job. Ann Arbor, Mich.: Survey Research Center, 1953.

Muir, William K., Jr. Police: Streetcorner Politicians. Chicago: University of Chicago Press, 1977.

Mulder, Mauk. "Power Equalization through Participation." Administrative Science Quarterly 16 (March 1971): 31-38.

Mullineaux, Jewell E. "An Evaluation of Predictors Used to Select Patrolmen." Public Personnel Review 16 (April 1965): 84-86.

Munro, Jim L. Administrative Behavior and Police Organization. Cincinnati: W. H. Anderson, 1974.

_____. "Intersystem Action Planning: Criminal and Non-Criminal Justice Agencies." Public Administration Review 36 (July/August 1976): 390-397.

Myren, Richard A. "Decentralization and Citizen Participation in Criminal Justice Systems." Public Administration Review 32 (October 1972): 718-738.

National Advisory Commission on Criminal Justice Standards and Goals. Task Force on Police. Police. Washington, D.C.: Government Printing Office, 1973.

Nebeker, Delbert M. "Situational Favorability and Perceived Environmental Uncertainty: An Integrative Approach." Administrative Science Quarterly 20 (June 1975): 281-294.

Negandhi, Anant R., and Reimann, Bernard C. "Task Environment, Decentralization and Organizational Effectiveness." Human Relations 26 (April 1973): 203-214.

Neubauer, David W. "After the Arrest: The Charging Decision in Prairie City." Law and Society Review (Spring 1974): 495-517.

Newman, Charles L.; Price, Barbara R.; and Horner, James R. "Police Executive In-service Training and Its Effects on Selected Personality Traits: Preliminary Analysis (Part 2)." Police Law Quarterly 2 (1973): 42-47.

Niederhoffer, Arthur. Behind the Shield: The Police in Urban Society. Garden City, N.Y.: Doubleday and Co., Anchor Books, 1969.

Norris, Donald. Police Community Relations. Lexington, Mass.: Lexington Books, D. C. Heath and Co., 1973.

Oaklander, Harold, and Fleishman, Edwin A. "Patterns of Leadership Related to Organizational Stress in Hospital Settings." Administrative Science Quarterly 8 (March 1964): 520-532.

Odoni, Amedeo R. "Recent Employment and Expenditure Trends in City Police Departments in the United States." Journal of Criminal Justice 5 (Summer 1977): 119-147.

O'Neill, Michael Waddington. "The Role of the Police: Normative Role Expectations in a Metropolitan Police Department." Ph.D. Dissertation, State University of New York at Albany, 1974.

Osterburg, James W.; Trubitt, Hillard J.; and Myren, Richard A. "Cadet Programs: An Innovative Change?" Journal of Criminal Law, Criminology and Police Science 58 (March 1967): 112-118.

Ostrom, Elinor. "Institutional Arrangements and the Measurement of Policy Consequences: Applications to Evaluating Police Performance." Urban Affairs Quarterly 6 (June 1971): 447-475.

_____. "On the Meaning and Measurement of Output and Efficiency in the Provision of Urban Police Services." _Journal of Criminal Justice_ 1 (Summer 1973): 93-112.

Ostrom, Elinor; Baugh, William; Guarasci, Richard; Parks, Roger; and Whitaker, Gordon. _Community Organization and the Provision of Police Service._ Administrative and Policy Study Series, No. 03-001. Beverly Hills, Calif.: Sage Publications, 1973.

Ostrom, Elinor, and Parks, Roger. "Suburban Police Departments: Too Many and Too Small?" _The Urbanization of the Suburbs: Urban Affairs Annual Review_ 1973 pp. 367-401. Beverly Hills, Calif.: Sage, 1973.

Ostrom, Elinor; Parks, Roger; and Whitaker, Gordon P. "Do We Really Want to Consolidate Urban Police Forces: A Reappraisal of Some Old Assertions." _Public Administration Review_ 5 (September 1973): 423-432.

_____. _Patterns of Metropolitan Policing._ Cambridge, Mass.: Ballinger, 1978.

Ostrom, Elinor, and Smith, Dennis C. "On the 'Liliputs' in Metropolitan Policing." _Public Administration Review_ 36 (March/April 1976): 192-200.

Ostrom, Elinor, and Whitaker, Gordon. "Local Community Control of Police." _American Journal of Political Science_ 17 (February 1973): 48-76.

Ouchi, William. "The Relationship between Organizational Structure and Organizational Control." _Administrative Science Quarterly_ 22 (March 1977): 95-113.

Pachon, Harry P., and Lovrich, Nicholas P., Jr. "The Consolidation of Urban Public Services: A Focus on the Police." _Public Administration Review_ 37 (January/February 1977): 38-47.

Palen, J. John. "Belief in Government Control and the Displaced Worker." _Administrative Science Quarterly_ 14 (December 1969): 584-593.

Palumbo, D. "Power and Role Specificity in Organization Theory." _Public Administration Review_ 29 (May/June 1969): 237-248.

Parker, L. Craig, Jr., and Goldfeder, Eileen. "Productivity Ratings of Graduate Programs in Criminal Justice Based on Publications in Ten Critical Journals." _Journal of Criminal Justice_ 7 (Summer 1979): 125-133.

Parker, L. Craig, Jr., and Roth, Marvin. "The Relationship between Self-Disclosure, Personality, and a Dimension of Job Performance of Policemen." _Journal of Police Science and Administration_ 1 (September 1973): 282-286.

Parsons, Talcott. _Structure and Process in Modern Society._ Glencoe, Ill.: Free Press, 1960.

Patterson, Samuel C. "The Professional Staffs of Congressional Committees." _Administrative Science Quarterly_ 15 (March 1970): 22-37.

Payne, Roy L., and Mansfield, Roger. "Relationships of Perceptions of Organizational Climate to Organizational Structure, Context, and Hierarchical Position." _Administrative Science Quarterly_ 18 (December 1973): 515-526.

Pedersen, Bjorn. "Managing for Effective Discipline: Direction and Control through Written Directives--Part I." _Police Chief_ 43 (April 1976): 58-61.

Pennings, Johannes M. "Work-Value Systems of White-Collar Workers." _Administrative Science Quarterly_ 15 (December 1970): 397-405.

_____. "The Relevance of the Structural-Contingency Model for Organizational Effectiveness." _Administrative Science Quarterly_ 20 (September 1975): 393-410.

Perrow, Charles. "Organizational Prestige: Some Functions and Dysfunctions." _American Journal of Sociology_ 66 (January 1961a): 335-341.

_____. "The Analysis of Goals in Complex Organizations." _American Sociological Review_ 26 (December 1961b): 854-866.

_____. "A Framework for the Comparative Analysis of Organizations." _American Sociological Review_ 32 (April 1967): 194-208.

Petersen, David M. "Informal Norms and Police Practice: The Traffic Ticket Quota System." _Sociology and Social Research_ 55 (April 1971): 354-362.

Pfeffer, Jeffrey. "Size, Composition, and Function of Hospital Directors: A Study of Organization Environment Linkage." _Administrative Science Quarterly_ 18 (September 1973): 349-364.

Pfeffer, Jeffrey, and Lawler, John. "Effects of Job Alternatives, Extrinsic Rewards, and Behavioral Commitment on Attitudes toward the Organization: A Field Test Paradigm." _Administrative Science Quarterly_ 25 (March 1980): 38-56.

Pfister, Gordon. "Outcomes of Laboratory Training for Police Officers." _Journal of Social Issues_, Vol. 31, No. 1 (1975): 115-121.

Pheysey, Diana C.; Payne, Roy L.; and Pugh, Derek S. "Influence of Structure at Organizational and Group Levels." _Administrative Science Quarterly_ 16 (March 1971): 61-73.

Piliavin, Irving, and Briar, Scott. "Police Encounters with Juveniles." _American Journal of Sociology_ 70 (September 1964): 206-214.

Poister, Theodore H., and McDavid, James C. "Victims' Evaluations of Police Performance." _Journal of Criminal Justice_ 6 (Summer 1978): 133-149.

Poitras, Guy E. "Welfare Bureaucracy and Clientele Politics in Mexico." _Administrative Science Quarterly_ 18 (March 1973): 18-26.

Poland, James M. "Police Selection Methods and the Prediction of Police Performance." _Journal of Police Science and Administration_ 6 (December 1978): 374-393.

Pondy, Louis R. "Effects of Size, Complexity, and Ownership on Administrative Intensity." Administrative Science Quarterly 14 (March 1969): 47-61.

Poole, Eric D., and Regoli, Robert M. "Changes in the Professional Commitment of Police Recruits: An Explanatory Case Study." Journal of Criminal Justice 7 (Fall 1979): 243-247.

Price, Barbara Raffel. "A Study of Leadership Strength of Female Police Executives." Journal of Police Science and Administration 2 (June 1974): 219-226.

_____. "Integrated Professionalism: A Model for Controlling Police Practices." Journal of Police Science and Administration 7 (March 1979): 93-97.

Primeau, Carol C.; Helton, John A.; Baxter, James C.; and Rozelle, Richard M. "An Examination of the Conception of the Police Officer Held by Several Social Groups." Journal of Police Science and Administration 3 (June 1975): 189-186.

Pugh, D. S.; Hickson, David J.; Hinings, C. R.; and Turner, C. "Dimensions of Organization Structure." Administrative Science Quarterly 13 (June 1968): 65-106.

_____. "The Context of Organization Structures." Administrative Science Quarterly 19 (March 1969): 91-114.

Purpura, Philip P. "Police Activity and the Full Moon." Journal of Police Science and Administration 7 (September 1979): 350-353.

Pursley, Robert D. "Leadership and Community Identification Attitudes among Two Categories of Police Chiefs: An Exploratory Inquiry." Journal of Police Science and Administration 2 (December 1974): 414-422.

_____. "Community Characteristics and Policy Implications: Some Exploratory Findings about Two Categories of Municipal Police Chiefs." Journal of Criminal Justice 4 (Winter 1976): 291-301.

Rafky, David M. "Police Attitudes and Labeling." Journal of Police Science and Administration 1 (March 1973): 65-86.

_____. "Racial Discrimination in Urban Police Departments." Crime and Delinquency 21 (July 1975): 233-243.

_____. "Police Cynicism Reconsidered: An Application of Smallest Space Analysis." Criminology 13 (August 1975): 168-192.

Rafky, David M.; Lawley, Thomas; and Ingram, Robert. "Are Police Recruits Cynical?" Journal of Police Science and Administration 4 (September 1976): 352-360.

Randall, Ronald. "Influence of Environmental Support and Policy Space on Organizational Behavior." Administrative Science Quarterly 18 (June 1973): 236-247.

Ranson, Stewart; Hinings, Bob; and Greenwood, Royston. "The Structuring of Organizational Structures." Administrative Science Quarterly 25 (March 1980): 1-17.

Reese, Charles D. "Police Academy Training and Its Effects on Racial Prejudice." Journal of Police Science and Administration 1 (September 1973): 257-268.

Regoli, Robert Michael. "The Effects of College Education on the Maintenance of Police Cynicism." Journal of Police Science and Administration 4 (September 1976a): 340-345.

_____. "An Empirical Assessment of Niederhoffer's Police Cynicism Scale." Journal of Criminal Justice 4 (Fall 1976b): 231-241.

Regoli, Robert Michael, and Jerome, Donnell E. "The Recruitment and Promotion of a Minority Group into an Established Institution: The Police." Journal of Police Science and Administration 3 (December 1975): 410-416.

Regoli, Robert Michael and Poole, Eric D. "Discrepancies in Cynicism Levels among City and County Police Officers." Unpublished, 1978.

_____. "Measurement of Police Cynicism: A Factor Scaling Approach." Journal of Criminal Justice (Spring 1979): 37-51.

Regoli, Robert M.; Poole, Eric D.; and Hewitt, John D. "Exploring the Empirical Realtionship between Police Cynicism and Work Alienation." Journal of Police Science and Administration 7 (September 1979): 336-339.

Regoli, Robert M., and Schrink, Jeffrey. "Dogmatism among Law Enforcement-Oriented and Noncriminology Students: An Extension." Journal of Police Science and Administration 5 (June 1977): 232-235.

Reimann, Bernard. "On the Dimensions of Bureaucratic Structure: An Empirical Reappraisal." Administrative Science Quarterly 18 (December 1973): 462-476.

Reiss, Albert J., Jr. Police and the Public. New Haven, Conn.: Yale University Press, 1971

Reiss, Albert J., Jr., and Sherman, Lawrence W. "Final Report: Controlling Police Corruption." LEAA Grant No. 75-NI-99-00-24-G, New Haven, Conn., 1975. (Mimeographed.)

Renner, K. Edward, and Gierach, Denice A. "An Approach to the Problem of Excessive Force by Police." Journal of Police Science and Administration 3 (December 1975): 377-383.

Reppetto, Thomas P. "The Influence of Police Organizational Style of Crime Control Effectiveness." Journal of Police Science and Administration 3 (September 1975): 274-279.

Rhead, Clifton; Abrams, Arnold; Trosman, Harry; and Margolis, Philip. "The Psychological Assessment of Police Candidates." In The Ambivalent Force: Perspectives on the Police, pp. 78-82. Edited by Arthur Niederhoffer and Abraham S. Blumberg. Hinsdale, Ill.: Dryden Press, 1976.

Rice, Linda E., and Mitchell, Terence R. "Structural Determinants of Individual Behavior in Organizations." Administrative Science Quarterly 18 (March 1973): 56-70.

Roberg, Roy R. "An Analysis of the Relationships among Higher Education, Belief Systems, and Job Performance of Patrol Officers." Journal of Police Science and Administration 6 (September 1978): 336-344.

Roberg, Roy R., and Laramy, John E. "An Empirical Assessment of the Criteria Utilized for Promoting Police Personnel: A Secondary Analysis." Journal of Police Science and Administration 8 (June 1980): 183-187.

Roethlisberger, Fritz Jules, and Dickson, William J. Management and the Worker: An Account of a Research Program Conducted by the Western Electric Company, Hawthorne Works, Chicago. Boston: Harvard University Press, 1939.

Rogers, Chester B. "Environment, System and Output: The Consideration of a Model." Social Forces 53 (September 1969): 86-95.

Rokeach, Milton. The Open and Closed Mind. New York: Basic Books, Inc., 1960.

Rokeach, Milton; Miller, Martin G.; and Snyder, John A. "The Value Gap between Police and Policed." Journal of Social Issues, Vol. 27, No. 5 (1971): 155-171.

Rosengren, William R. "Structure, Policy, and Style: Strategies of Organizational Control." Administrative Science Quarterly 12 (June 1967): 140-164.

Rosner, Martin M. "Economic Determinants of Organizational Innovation." Administrative Science Quarterly 12 (March 1968): 614-625.

Rossel, Robert D. "Instrumental and Expressive Leadership in Complex Organizations." Administrative Science Quarterly 15 (September 1970): 306-316.

_____. "Autonomy in Bureaucracies." Administrative Science Quarterly 16 (September 1971): 308-314.

Rothman, Robert A., and Perrucci, Robert. "Organizational Careers and Professional Expertise." Administrative Science Quarterly 15 (September 1970: 282-293.

Rubenstein, Jonathan. City Police. New York: Farrar, Straus and Giroux, 1973.

Rushing, William A. "The Effects of Industry Size and Division of Labor on Administration." Administrative Science Quarterly 12 (September 1967): 267-295.

_____. "Differences in Profit and Nonprofit Organizations: A Study of Effectiveness and Efficiency in General Short-Stay Hospitals." Administrative Science Quarterly 19 (December 1974): 474-484.

Rusinko, William T.; Johnson, Knowlton W.; and Hornung, Carlton A. "The Importance of Police Contact in the Formulation of Youths' Attitudes toward Police." Journal of Criminal Justice 6 (Spring 1978): 53-67.

Salancik, Gerald R., and Pfeffer, Jeffrey. "The Bases and Use of Power in Organizational Decision Making: The Case of a University." Administrative Science Quarterly 19 (December 1974): 453-473.

Sales, Stephen M. "Organizational Role as a Risk Factor in Coronary Disease." Administrative Science Quarterly 14 (September 1969): 325-336.

Sandler, Georgette Bennett, and Mintz, Ellen. "Police Organizations: Their Changing Internal and External Relationships." Journal of Police Science and Administration 2 (December 1974): 458-463.

Savitz, Leonard. "The Dimensions of Police Loyalty." American Behavioral Scientist 13 (August 1972): 693-704.

Saxe, Susan J., and Reiser, Martin. "A Comparison of Three Police Applicant Groups Using the MMPI." Journal of Police Science and Administration 4 (December 1976): 419-425.

Schaefer, Roger. "Law Enforcer, Peace Keeper, Servicer: Role Alternatives for Policemen." Journal of Police Science and Administration 6 (September 1978): 324-335.

Schein, Edgar H. Organizational Psychology. Englewood Cliffs, N.J.: Prentice-Hall, 1965.

_____. "Attitude Change during Management Education." Administrative Science Quarterly 11 (March 1967): 601-628.

_____. "The Individual, the Organization and the Career: A Conceptual Scheme." Journal of Applied Behavioral Science 7 (1971): 401-426.

Schneider, Benjamin, and Alderfer, Clayton P. "Three Studies of Measures of Need Satisfaction in Organizations." Administrative Science Quarterly 18 (December 1973): 489-505.

Schneider, Benjamin; Parkington, John J.; and Buxton, Virginia M. "Employee and Customer Perception of Service in Banks." Administrative Science Quarterly 25 (June 1980): 252-267.

Schwartz, Alfred I., and Clarren, Sumner N. Cincinnati Team Policing Experiment. Washington, D.C.: Police Foundation, 1977.

Scurrah, Martin J.; Shani, Moshe; and Zipfel, Carl. "Influence of Internal and External Change Agents in a Simulated Educational Organization." Administrative Science Quarterly 16 (March 1971): 113-120.

Shafritz, Jay M., and Whitbeck, Philip H., Ed. Classics of Organization Theory. Oak Park, Ill.: Moore, 1978.

Shanahan, Gerald W.; Hunger, J. David; Wheelen, Thomas L. "Organizational Profile of Police Agencies in the United States." Journal of Police Science and Administration 7 (September 1979): 354-360.

Shealy, Allen E. Police Integrity: The Role of Psychological Screening of Applicants. Criminal Justice Monograph, LEAA Grant on Anti-Corruption Management No. 75-NI-99-0083. New York: John Jay Press, 1975.

Sheldon, Mary E. "Investments and Involvements as Mechanisms Producing Commitment to the Organization." Administrative Science Quarterly 16 (June 1971): 143-150.

Sheppard, Charles; Bates, Cindy; Fracchia, John; and Merlis, Sidney. "Need Structures of Police Personnel: Toward a Resolution." Journal of Police Science and Administration 3 (December 1975): 446-449.

Sherif, Muzafer, and Sherif, Carloyn W. An Outline of Social Psychology. New York: Harper and Row, 1956.

Sherman, Lawrence W.; Milton, Catherine H; and Kelly, Thomas V. Team Policing: Seven Case Studies. Washington, D.C.: Police Foundation, 1973.

Shumate, Robert P., and Crowther, Richard F. "Quantitative Methods for Optimizing the Allocation of Police Resources." Journal of Criminal Law, Criminology, and Police Science 57 (June 1966): 197-206.

Siedman, David, and Couzens, Michael. "Getting the Crime Rate Down: Political Pressure and Crime Reporting." Law and Society Review 8 (Spring 1974): 457-493.

Siegel, Larry J.; Sullivan, Dennis C.; and Greene, Jack R. "Decision Games Applied to Police Decision Making—An Exploratory Study of Information Usage." Journal of Criminal Justice 2 (Summer 1974): 131-146.

Singleton, Gary, and Teahan, John. "Effects of Job-Related Stress on the Physical and Psychological Adjustment of Police Officers." Journal of Police Science and Administration 6 (September 1978): 355-361.

Skogan, Wesley G. "Policy-making and Police Taking: Controlling Behavior on the Beat." Urban Affairs Quarterly 9 (June 1974): 520-528.

_____. "Measurement Problems in Official and Survey Crime Rates." Journal of Criminal Justice 3 (1975): 17-32.

_____. "Efficiency and Effectiveness in Big-City Police Departments." Public Administration Review 36 (May/June 1976): 278-286.

Skogan, Wesley G., and Antunes, George E. "Information, Apprehension, and Deterrence: Exploring the Limits of Police Productivity." Journal of Criminal Justice 7 (Fall 1979): 217-224.

Skolnick, Jerome H. Justice Without Trial. New York: John Wiley and Sons, 1966.

Skolnick, Jerome H., and Woodworth, J. Richard. "Bureaucracy, Information, and Social Control: A Study of a Morals Detail." In The Police: Six Sociological Essays. Edited by David J. Bordua. New York: Wiley and Sons, 1967.

Slevin, Dennis P. "The Innovation Boundary: A Specific Model and Some Empirical Results." Administrative Science Quarterly 16 (December 1971): 515-531.

_____. "The Innovation Boundary: A Replication with Increased Costs." Administrative Science Quarterly 18 (March 1973): 71-75.

Slovak, Jeffrey S. "Work Satisfaction and Municipal Police Officers." Journal of Police Science and Administration 6 (December 1978): 462-470.

Smith, Alexander B.; Locke, Bernard; and Fenster, Abe. "Authoritarianism in Police College Students and Non-Police College Students." Journal of Criminal Law, Criminology and Police Science 59 (September 1969): 440-443.

_____. "Authoritarianism in Policemen Who are College Graduates and Non-College Police." Journal of Criminal Law, Criminology and Police Science 61 (1970): 313-315.

Smith, Alexander B.; Locke, Bernard; and Walker, William F. "Authoritarianism in College and Non-College Oriented Police." Journal of Criminal Law, Criminology and Police Science 58 (March 1967): 128-132.

_____. "Authoritarianism in Police College Students and Non-Police College Students." Journal of Criminal Law, Criminology and Police Science 59 (1968).

Smith, Catherine B. "Influence of Internal Opportunity Structure and Sex of Worker on Turnover Patterns." Administrative Science Quarterly 24 (September 1979): 362-381.

Smith, Clagett G. "Scientific Performance and the Composition of Research Teams." Administrative Science Quarterly 16 (December 1971): 486-495.

Smith, Dennis C. "Dangers of Police Professionalization: An Empirical Analysis." Journal of Criminal Justice 6 (Fall 1978): 199-216.

Smith, Dennis C., and Ostrom, Elinor. "The Effects of Training and Education on Police Attitudes and Performance: A Preliminary Analysis." In The Potential for Reform of Criminal Justice, pp. 45-81. Sage Criminal Justice Annual, Vol. 3. Beverly Hills, Calif.: Sage, 1974.

Smith, Paul E., and Hawkins, Richard O. "Victimization, Types of Citizen-Police Contacts, and Attitudes toward the Police." Law and Society Review 8 (Fall 1973): 135-152.

Smith, Peter B.; Moscow, David; Berger, Mel; and Cooper, Cary. "Relationships between Managers and Their Work Associates." Administrative Science Quarterly 14 (September 1969): 338-345.

Snibbe, Homa M.; Azen, Stanley P.; Montgomery, Hugh R.; and Marsh, Stewart H. "Predicting Job Performance of Law Enforcement Officers: A Ten- and Twenty-Year Study." In The Urban Policeman in Transition, pp. 101-116. Edited by John Snibbe and Homa Snibbe. Springfield, Ill.: Charles C. Thomas, 1973.

Snizek, W. E. "Hall's Professionalism Scale: An Empirical Reassessment." _American Sociological Review_ 37 (February 1972): 109-114.

Staufenberger, Richard A. "The Professionalization of Police: Efforts and Obstacles." _Public Administration Review_ 37 (November/December 1977): 678-685.

Steers, Richard M. "Problems in the Measurement of Organizational Effectiveness." _Administrative Science Quarterly_ 20 (December 1975): 546-558.

Sterling, James W. _Changes in Role Concepts of Police Officers._ Washington, D.C.: International Association of Chiefs of Police, 1970.

Stinchcombe, Arthur L. "Bureaucratic and Craft Administration of Production: A Comparative Study." _Administrative Science Quarterly_ 4 (September 1959): 168-187.

_____. "Institutions of Privacy in the Determination of Police Administrative Practice." _American Journal of Sociology_ 69 (September 1963): 150-160.

Strauss, G., and Rosenstein, R. "Worker Participation: Critical View." _Industrial Relations_ 9 (February 1970): 197-214.

Sutton, Richard L. "Cultural Context and Change and Change-Agent Organizations." _Administrative Science Quarterly_ 19 (December 1975): 547-562.

Swanson, Charles R. "An Uneasy Look at College Education and the Police Organization." _Journal of Criminal Justice_ 5 (Winter 1977): 311-320.

Sykes, Richard E., and Clark, John P. "A Theory of Deference Exchange in Police-Civilian Encounters." _American Journal of Sociology_ 81 (November 1975): 584-600.

Sykes, Richard; Fox, James; and Clark, John. "A Socio-Legal Theory of Police Discretion." In _The Ambivalent Force: Perspectives on the Police_, pp. 171-183. Edited by Arthur Niederhoffer and Abraham S. Blumberg. Hinsdale, Ill.: Dryden Press, 1976.

Taylor, Frederick Winslow. _Scientific Management._ New York: Harper and Row, 1947.

Teahan, John E. "A Longitudinal Study of Attitude Shifts among Black and White Police Officers." _Journal of Social Issues_, Vo. 31, No. 1 (1975): 47-56.

Teasley, C. E., III, and Wright, Leonard. "The Effects of Training on Police Recruit Attitudes." _Journal of Police Science and Administration_ 1 (June 1973): 241-248.

Teevan, James J., and Dolnick, Bernard. "The Values of the Police: A Reconsideration and Interpretation." _Journal of Police Science and Administration_ 1 (September 1973): 366-369.

Telly, Charles S.; French, Wendell L.; and Scott, William G. "The Relationships of Inequity to Turnover among Hourly Workers." _Administrative Science Quarterly_ 16 (June 1971): 164-172.

END