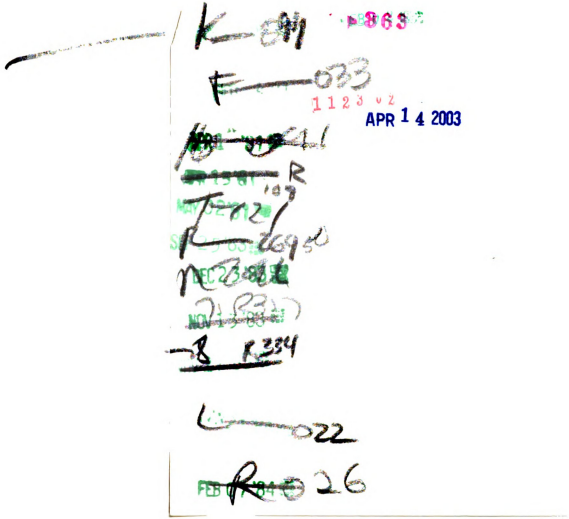
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INTERORGANIZATIONAL RELATIONSHIPS AND THEIR EFFECT ON INTERNAL ORGANIZATIONAL PROCESSES: A CASE STUDY OF HEALTH AND WELFARE AGENCIES

By

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ABSTRACT

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AND THEIR EFFECT ON INTERNAL ORGANIZATIONAL PROCESSES:
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The literature concerning the Sociology of Formal Organizations demonstrates a variety of theoretical and empirical approaches. Each of these attempt to explain various aspects of social phenomena occurring in and among formal organizations. The phenomena are grouped into three general categories: organizational environment; organizational structure; and internal organizational processes. These categories contribute to the basic research question addressed in the present study, viz., how, and to what degree do interorganizational relations as mediated by the organizational structure affect internal social processes.

The Environment-Structure-Process Model, which I propose, addresses my research question and indicates how major examples of previous studies and theories provide cumulative evidence for constructing such a model of organizational phenomena. The data examined in this study are drawn from a comprehensive research project on social service agencies in two middle-size cities in a mid-western state. These data serve the two-fold purpose of examining the research question and of substantiating the theoretical model.

A basic open systems approach, emphasizing human ecological theory provides the theoretical foundation for this paper. In demonstrating the feasibility of this approach for organizational studies, I have relied upon recent ideas of "loose coupling" and "concept disaggregation". Also, I present the idea of "multiple relations" as a way of thinking in terms of multiple causation considered fundamental to the open systems approach. Pearson correlations is the statistic utilized to examine multiple relations among the variables of this study.

The dissertation provides empirical support for the contention that organizational structure mitigates the effects of interorganizational relationships (or environment) upon the internal organizational processes. This finding, in effect, substantiates the model proposed for consideration.

The data analysis also provides support for a number of other ideas concerning formal organizations. First, the organizational environment of social service agencies may be typified as one of antagonistic cooperation. Agencies are in competition with one another for similar resources but they also need each other to maintain conditions necessary for their survival. Second, the organizational environment (interorganizational relationships) does have a general constraining effect upon internal organizational processes. Third, the internal activities of communication, influence, and cooperation contribute to internal competition within each agency but balance each other out so that chaos does not result.

For

Ana, Joey, and David

and

Joe and Helen

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INTRODUCTION
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STATEMENT OF THE PROBLEM

Social service agencies in the United States have experienced a rather checkered existence. Their role in the provision of life-sustaining activities for the needy have reflected the political, economic, and philanthropic philosophies of the day.[1] From "poor laws" to food stamps, the documentation of welfare agencies' activities has consistently been a part of their operating procedures. Whether through a real concern for their clients or through a need to account to benefactors concerning the allocation of resources, social welfare agencies have been open to both social and sociological analysis.

It is in the sociological context that the present research is conducted. Innovations in society as well as in the methods used to study society provide us with the means and almost dictate the need for ongoing evaluation procedures. (See Katz, et al. (1975) for a recent example.) My concern in this study is the impact of the "task environment" or organization set (Caplow, 1964: 201) on internal social processes within social service agencies.

This investigation builds upon existant knowledge and theoretical concerns. The data represent organizational and environmental variables for a number of public and private social service agencies in a

[1]For excellent, historical summaries of social welfare policy and practice, see Friedlander (1961) and Smith & Zietz (1970).

medium-sized city of Michigan. The choice of these organizations, rather than other governmental and/or private sector organizations, was determined by the researchers' interests as well as by the needs of the local United Way. Previous empirical and theoretical publications in the health and welfare literature facilititated the implimentation of the research design and the construction of the questionnaires. (For example: Aiken and Hage, 1968; Levine and White, 1961; Mott, 1968; Terreberry, 1968; and White and Vlasak, 1971.)

This study assumes a measurable flow of influence from the activities of organizations with one another (interorganizational relationships) to activities that take place within the organization itself (internal social processes) and vice-versa. (See Dill, 1958, 1962; Emery and Trist, 1965; Lawrence and Lorsch, 1967; Thompson and McEwen, 1958; Gillespie and Kim, 1974.) The "flow of influence" is roughly analogous to that perceived by social psychologists and small group practitioners in studying interaction effects between their units of analysis and relevant "environments".

Beginning with Cooley and Mead, social psychologists have determined that the activities of an individual not only reflect one's own personality (internal characteristics) but also are responses to such entities as: generalized others, agents of socialization, and reference groups (external factors). Small group studies have also demonstrated that the "character" of groups is shaped by the individuals and processes that comprise the group as well as the outside pressures to which the group qua group is exposed. (For example: Leighton, 1945; Lewin, 1951; Pepitone and Kleiner, 1957; Sherif and Sherif, 1953.) Findings from small group studies have contributed not only to the work

of present-day adherents to the Human Relations school of thought in industry, but also to counseling and mental health practices for families, delinquents, inmates of mental and penal institutions, and rehabilitation practices in general.

Extending these social-psychological findings and extrapolating from them, I assume formal organizations are composed of internal activities and conditions which are pertinent to the goals of the organization and responsive to external factors. As compared to social psychology and small group research, the documentation and explanation of such processual flows for organizations remain at primitive stages. Sporadic indications in the organizational literature present the idea that small group and intergroup research has implications for inter-organizational relations and concomitant intra-organizational processes. (Altman, 1966; March and Simon, 1958.) However, the next logical level of analysis requires empirical evidence to support this approach at the organizational level. Moreover, well-founded conclusions also yield many practical and theoretical applications.

In terms of "problem oriented" applications, this research provides a basis for increased efficiency and effectiveness in organizations by considering, in part, the sources and the positive/negative consequences of internal and external conflict. Secondly, this study demonstrates how interpersonal behavior in formal organizations can be affected by factors completely extraneous to the individuals engaged in cooperative or complimentary behavior. Thirdly, the study contributes to a greater understanding of the problems of inter-organization coordination and its concomitant intra-organizational consequences.

There is a need for information on this last mentioned theme.

Spontaneous trends among churches, small colleges, and even community action groups indicate increased interaction among organizations that have similar goals. (Hall, 1977: 328.) Government legislation and executive orders also encourage interorganizational activities without a full appreciation of all the possible consequences. Implementation of regional delivery systems, including efforts to diminish high operating costs and impractical duplication of services, increases the present number and variety of organizational interrelationships. The impact of such legislation has yet to be assayed in its entirety. The present study contributes to our knowledge in this area.

Theoretically, this study has implications for the general-systems approach to the study of society. The systems model attempts to define relationships between and among different levels of social analysis, i.e., individual, group, and societal. (Churchman, 1968; Katz and Kahn, 1966; Miller and Rice, 1967.) Recent studies indicate the relevance of such multi-level considerations for organizational analysis. (See Indik, 1968; Hall, 1972; Rice and Mitchell, 1973; Leifer and Huber, 1977; Nightingale and Toulouse, 1977.) Also falling under the systems rubric is Kenneth Boulding's (1953) economic-ecological approach to the growth of organizations and a recent article by Hannan and Freeman (1977). These two works, 20 years apart, attest to the continued viability of the ecological model for organizational studies.

Focusing on environmental, i.e., interorganizational, activities and their effects on the internal social processes of organizations also allows for a different perspective on personnel practices in organizations. Too often, the time-motion and the Human Relations

approaches inadvertently limited social scientists to parochical observations about organizations, especially regarding productivity and happiness of the workers. With the broader ecological perspective as espoused in this paper, we can obtain an additional insight on organizational efficiency as related to the effects of environmental and structural phenomena on relations among managers, workers, products, and eventually clients.

I assume that an organization is an open system, i.e., the internal social processes are, by definition, responsive to the environment in which the organization operates. (See Katz and Kahn, 1966: 14-29.) Various types of environment have been examined in the literature. The manner in which the concept is used here is in terms of interorganizational relationships. (See Perrow, 1970: 121; Hawley, 1950: 42.)[2] Therefore, other definitions of environment, such as community support or the political and economic conditions associated with the rise and fall of organizations are not of concern here. I recognize, however, that the organizations in this study are all concentrated in one community and are the results of recent political and economic decisions of present-day American society.

One other component that needs to be introduced here is organizational structure. Structure has been conceptualized as both a dependent and an independent variable and operationalized in a multitude of ways. (For example: Blau, 1968; Blau and Schoenherr, 1971; Child, 1972, 1973; Meyer, 1968, 1972; Pennings, 1973; Pugh et al., 1968, 1969.) Bacharach and Aiken (1976) in examining influence in

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[2]The operational definition of "environment" is explained more fully in the Methods chapter.

organizations distinguish between organizational structure and organizational process. Their distinction is similar to the one maintained in this present research. "Processes" refer to behavioral patterns among individuals which may involve work activities as well as social or interpersonal exchanges within the organizational setting. On the other hand, "structure" refers, in the Durkheimian sense, to such morphological variables as size, ratio of professionals to non-professionals, number of hierarchical levels, and age of the organizations. This distinction allows for a clear conceptualization of these two important organizational components and is especially pertinent for the present study. The model which I test specifically establishes organizational structure as an intervening variable between the external environment and the social processes within the organizations. Thus, I argue, the environment does not always have a direct effect on organizational processes but environmental forces are conditioned by the organizational structure.

The present research asks how and to what degree the interorganizational relations (independent variable) affect the internal social processes (dependent variable) as mediated by the organizational structure (intervening variable).

The following chapters attempt to answer the above general research problem. In the review of the literature, a series of propositions will be developed that serve as the basis for constructing testable statements of relationships among the variables. A description of the data and analytical procedures will be presented in the following chapter. The analysis of the data and the contributions of the study will conclude this present writing.

THEORY AND LITERATURE REVIEW

Both theoretical treatises and applied research have contributed to present knowledge concerning formal organizations. Although many students of bureaucracy deplore the apparent lack of consensus in the field (Gillespie and Kim, 1974; Hall, et al., 1973; Rieker, et al., 1974), the present review emphasizes continuities of thought in the organizational literature, while presenting the material relevant for the variables utilized in this study.

The literature reflects three basic themes on organizations, viz.: a) concern with the formal and informal aspects of the internal organizational structure, e.g., Weber, Barnard, and the Human Relations school; b) the problematic relationship between structure and technology for social interaction in the work processes, e.g., Litwak, Perrow, Faunce, Stinchcombe, and Woodward; c) the importance of extra-organizational features and their impact on the organizational structure, e.g., Katz and Kahn, Litwak and Meyer, J. D. Thompson, and, finally, the Aston group. A fourth, and more encompassing, theme naturally follows from these three, viz., the correspondence between environmental and organizational variables. Attempts to incorporate the above concerns into a coherent whole reflect the concerns of organizationalists at present. Hall (1972: 322-324) and Indik (1968: 3-26) both indicate that theoretically the relationships among the analytical levels, as typified above, do exist. However, the problem, as they point out, is

conceptualization and operationalization of relevant variables. The present research attempts to answer some of these measurement problems.

Traditional Organizational Theory

The writings of two men - Max Weber and Chester I. Barnard - form the basis for much of present-day knowledge and research in the field of organizational studies. The first part of this literature review focuses on their work and their followers.

Perhaps the earliest indication of the relationship between the environment and the formal organization is found in the writings of Max Weber. (Henderson and Parsons, 1964: 145-186, 310-341; Gerth and Mills, 1958: 204-209, 224-244, 320-340.) In dealing with corporate bodies and legal-rational authority, Weber demonstrated how the prevailing socio-economic conditions of society contributed to the rise of bureaucracy in Western Europe. The spread of a money economy, the impact of the Reformation on economic life and the interplay between bureaucracy and education, as placed in perspective by Weber, demonstrate his concern and appreciation for the reciprocal interaction between large formal organizations and their environments.

This is an important perspective. Weber's treatment of bureaucracy and society has served as the foundation for much of present-day knowledge and research on formal organizations, but has also received extensive criticism for neglecting the organizational environment. But, Weber's work is distinctly based on his society-wide concern for power and authority. His work anticipated, in a broad global sense, the more specialized organization-environment studies of today.

More specifically, the distinctive characteristics that Weber

identified with bureaucratic organizations have enhanced our understanding of the phenomenon which dominates much of modern man's life. Rules, impersonality, specialized staff, and hierarchical authority characterize bureaucracy as the most efficient means to attain stated goals. Weber's treatment of bureaucracy placed authority or legitimated power in the hands of a person capable of giving orders and who could expect compliance because of his position. Vertical channels of communication corresponded to the levels of hierarchy in an organization. Weber also emphasized the impact of formal rules and regulations which govern the relationships of members of bureaucracies. These rules contributed to the "formalistic impersonality" of the office holders.

Weber's overall concern with the structural aspects of organizational bureaucracy led him to neglect the informal associations of persons within the bureaucracy. This has been a basis for the strong criticism from those who contend one must attend to, and for, the human element in organizations. (For example, Argyris, 1960 & 1964; Blau and Scott, 1962; Gouldner, 1950: 644-659; Likert, 1961.) Nevertheless, it is often overlooked that Weber's reference point was the organization structure and not the individual occupants of the organization. Moreover, he may have considered this aspect to be foreign to his treatment of bureaucracy, since it did not contribute to the legal-rational dimensions of an organization. On the other hand, Weber does consider personality characteristics in his treatment of leader-follower relations in charismatic authority structures as well as interpersonal relations in his account of traditional authority structures. Whether scholars attempt to prove, refute, or reconcile Weber's treatise on bureaucracy and the socio-economic environment in which it flourished,

the Ideal Type has stimulated a variety of studies. (For example: Udy, 1959 & 1961; Gouldner, 1954; Blau, 1955.)

Weber attributed efficiency to an organization when set up along the lines of the Ideal Type of bureaucracy. Thus, he did not seem to be overly concerned with the effectiveness of formal organization; by definition, effectiveness is an attribute of bureaucracy. On the other hand, those authors associated with the Human Relations school of organizational sociology demonstrated great concern over this phenomenon. One of the first who treated the problematic nature of effectiveness was Chester I. Barnard. (The Functions of the Executive, 1938.)

Barnard's emphasis on efficiency and effectiveness in organizations stresses the importance of informal relationships within the formal organization. It is around this theme that he builds his conceptualization of authority and his treatment of the organization and its environment.

Barnard defined the formal organization as a "system of consciously coordinated activities or forces of two or more persons". (1938: 73) Thus, cooperation is the foundation for goal oriented activity. However, formal organizations, as they come into operation, create and require informal organizations, i.e., the "aggregate of the personal contacts and interactions and the associated groupings of people". (1938: 115) Within this framework, Barnard saw authority as centering around the communication of understandable directives that the recipient can carry out. This "carrying out" is then dependent upon the "interests of the persons who . . . as a group result in an exercise of influence" on the person who receives a command.

(1938: 165-166) The informal organization is essential not only for the subordinate units but also at the executive level. In Barnard's view, the combination of factors that make up the informal organization are indispensable for the operation of the formal organization in terms of communication, of cohesion, and of protecting the integrity of the individual. In contrast, Weber treats these same three functions by relying upon the rules, offices, and hierarchical nature of the formal structure of the organization.

Barnard also emphasized the importance of understanding the relationship between an organization and its environment. He defined this relationship in terms of survival for the organization. By definition, systems of cooperation (i.e., formal organization) "are never stable because of changes in the environment and the evolution of new purposes". "The adjustment of cooperative systems to changing conditions or new purposes implies special management processes . . . known as executives' or executive organizations." (1938: 35-37) Thus, by extension, the informal organization is the most receptive of and responsive to changing environmental conditions. The survival of an organization depends upon maintaining "an equilibrium of complex character in a continuously fluctuating environment . . . which calls for readjustment of processes internal to the organization." (1938: 6) Barnard defined this equilibrium in terms of a quadruple economy which treats the relevance of an organization's purpose to the environmental situation together with the composite results of the informal organizational processes. The only measure of this economy, he states, is the survival of the organization. (1938: 251-252).

This topical treatment of Weber and Barnard lays the groundwork

for the present study and summarizes the major differences and similarities between the two authors. Weber's treatise was couched mainly in terms of societal-wide influences on large scale political, economic, military, and religious organizations. Barnard's emphasis was mainly in terms of economic industrial organizations. Their overall concern, however, is similar in that both were very much aware of the interplay between the environment and the formal organization. Weber treated formal organization, i.e., bureaucracy, and its environment in global terms, where the direction of influence was principally from the environment to the organization. Barnard's treatment is the reverse. The center of his interest was the processes (formal and informal organization) by which the adjustment of external conditions is accomplished. Also, both men treated organizations in terms of social relationships, differing only in their emphasis. Barnard scrutinized the informal, while Weber, the formal relationships. In a sense, both men subsumed the other's major concern. Barnard focused on communication processes as essential for organizational effectiveness and efficiency, while Weber focused on authority in terms of legitimate power, office, and expertise for accomplishing the goals of the organization. However, communication implies intelligent messages, sender and receiver statuses, and expectations of legitimacy and compliance. On the other hand, effective authority implies reciprocal role relations and some minimum degree of communication along a hierarchical continuum. So, perhaps these two authors complement each other more than what is thought. (See Hopkins, in Etzioni, 1961a, for a more detailed examination on the two authors' concepts of authority.)

Human Relations Critique of Weber

The fact that Weber's concern was global in defining ideal characteristics of bureaucracy, while Barnard focused on the output of industrial type organizations has, undoubtedly, contributed to the different emphases in their writings. But the Human Relations School, as it has come to be called, has served as a counter-point to Weber's emphasis on rationality, rules, hierarchy, and impersonality in formal organizations. That this happened demonstrates the vagaries of scientific research. The original impetus of the Human Relations people evolved from an attempt to relate psychological factors to worker production in contradistinction to the Scientific Management theory of Taylor. But, in a classic case of serendipity, Elton Mayo and his associates stumbled upon the informal work group in large organizations and turned from physiological and psychological considerations to sociological factors affecting worker productivity.

The whole import of Mayo's, Roethlesberger's and Dickson's work in the Hawthorn experiments emphasized on-the-job relationships. As such, these relationships were investigated apart from the rules, chains of command, and other formal features of legal-rational authority in bureaucracies as emphasized by Weber. Thus, the formal organization and its relationship with the environment through technology received only slight attention from these investigators; the informal organization emerged as the focus of Roethlesberger and Dickson's attention. (Management and the Worker, 1939.)

Basic to this focus is the emphasis on an individual with his own personality, sentiments, and values. These psychological variables are brought to the job and affect the demands that a worker places upon

his job in terms of physical and social needs. The psychological aspects also affect his relationships with others in the work situation, so that he reacts on the basis of past conditioning and his perception of present circumstances. Aware of these psychological or "human organization" level variables, Roethlesberger and Dickson conceptualized the "social organization", or the patterns of relations formed through daily interaction among members of an organization. They recognized these patterns of behavior as processes occuring among individuals and apart from the formally constituted behavior patterns of an industrial plant. Thus, "individuals, conscious of their membership in certain groups, (react) in certain accepted ways to other individuals representing other groups." (1939: 555) Roethlesberger and Dickson also measured the patterns of interaction among individuals and groups by setting up a "social distance" scale for both the formal and informal organization of the plant.

The importance of the informal organization in this scheme is exemplified by their emphasis upon the high degree of collaboration and information exchange. Furthermore, the strategic importance of the informal organization is that it may appear at any level in an organization - from the executive to the worker level. Finally, they point out that the informal organization may function to impede or to facilitate communication and purposive action in an organization.

It is upon these insights and emphases that present-day representatives of this school of thought have conducted their research and influenced the trend of organizational studies. Such people as Likert (1961; 1967), Argyris (1960; 1964), and McGregor (1960) extended these ideas, treating as problematic the internal harmony of the large

organization for the purpose of making it efficient and effective.

Sociological Critiques and Extensions of Weber

The insights of the early Human Relations theorists were also picked up by others who were not totally immersed in this perspective. Merton, for example, combined Weber's treatment of bureaucracy with the Human Relations focus on informal procedures. Merton (1940) was especially concerned with overconformity to rules and regulations and the resulting dysfunctions for the organization. He discussed the negative effects that bureaucracies can have upon incumbents. Combining insights of various authors, Merton justified further inquiry into the effects of the formal structure of large organizations upon staff members as individuals, the relationships among staff members, and the relationships between staff and clients.

Merton notes that bureaucracy, in order to operate successfully, exerts a constant pressure upon individuals within the organization. The reason for this is to obtain a high degree of reliability of behavior. The discipline and conformity to rules, however, may produce a formalism which is reflected by goal displacement and trained incapacity. Individual staff members caught up in such a syndrome readily replace achievement of the purposes of the organization with conformity to rules.

Another result of bureaucratic structure can be seen in the espirit de corps and informal social organization that develop when people work together and share the same interests and burdens. While such relationships among staff members are beneficial to the organization, this same togetherness can be transformed into defending

entrenched interests rather than doing their jobs. Informal mechanisms tied in with a "pride of craft" are also conducive to helping bureaucrats resist changes in their routines. This contributes to a conservatism and an inability to innovate at the group level.

Finally, Merton examines primary and secondary relationships. The bureaucrat is trained in impersonal ways of acting within the organization. When this spills over into his relationships with clients, conflict arises. The client desires individualized and personal consideration, while the clerk (bureaucrat) is too ready to categorize the client's problems. Thus, Merton attributes the client-bureaucrat conflict to organizational structural characteristics rather than to personality differences.

Merton aptly described the major dysfunctions of bureaucracy and provided a further elaboration of Weber's treatise on bureaucracy. Moreover, Merton confined himself to Weber's perspective and did not consider the organizational environment per se, nor the personality characteristics which employees bring with them to their place of work. But, two authors who did focus on these latter points were Peter M. Blau and Alvin W. Gouldner.

Blau (1955) followed the lead of the Human Relations school of thought, but advanced their emphasis on the informal work group within the formal organization one step further. Aware of Bernard's and Roethlesberger and Dickson's emphasis on the informal organization, Blau empirically demonstrated how internal activities of bureaucracies combine formally institutionalized practices with informal associations. In doing so, Blau utilized Weber's focus upon official regulations and requirements and tied it to Barnard's views on the importance of the

informal organization in large-scale bureaucracies. His attempt at combining Weber and Barnard is couched in terms of exploiting Barnard's crucial insight in order to fill the gap left in Weber's statements concerning bureaucracies. Moreover, he wanted to get away from the static conceptualization of bureaucracies by focusing on those practices which, whether or not they conform to offical rules, are part of the bureaucratic organization and manifest its mutablity.

In the Dynamics of Bureaucracy, Blau emphasized the relations between the formal structure of two public bureaucracies and the informal relations among office personnel. He showed, in this early case study, how official requirements, performance ratings, and hierarchical authority were part of the structure which caused a network of interpersonal relations to take shape. In this manner, the network circumvented some officially prescribed modes of activity but still achieved the goals of the organization as well as the goals of the individuals within the organizations. He also demonstrated how the prevailing group values and norms affected the members. Conformity to group standards replaced conformity to organization standards under certain conditions of status relations and group attractiveness. What Blau does, then, is combine the informal and the formal practices in order to understand the dynamic character of the formal organization. By looking at resistance to change, and at functional and dysfunctional aspects of social patterns, Blau examined how some social patterns met job demands, created new needs and continuously developed and modified organizational structure. He also challenged the assumption that bureaucratic constraints inherently engender resistance to change.

Blau's dialectical analysis concluded with an attempt to specify structural conditions required for flexibility and continuous development of bureaucracies.

Finally, Blau also observed how the external environment affected bureaucratic workflow by noting that judicial decisions, congressional legislation, and administrative directives brought about continuous organizational innovations designed to meet clients' needs. The net result was constant procedural modifications which affected the work performance of agency personnel. In making this explicit, Blau demonstrated how the external environment influenced employees' work behavior. By merging Weber's conceptualizations and those of Barnard and Roethlesberger with his own findings, Blau greatly contributed toward the study of formal organizations and their environments.

At the same time that Blau studied government agencies, Alvin Gouldner was concluding a case study on industrial bureaucracy. (1954) Weber's theoretical approach was Gouldner's starting point to demonstrate how the conception of bureaucracy could be refined and empirically tested apart from the public service setting. Gouldner also relied upon insights from the Hawthorne studies for interpreting some of his data.

Gouldner builds on Weber's treatment of bureaucracy as a form of administration in industry that is based upon knowledge and expertise as well as authority and incumbency in office. In his study of the gypsum plant, Gouldner demonstrated how three subsets of bureaucracy (mock bureaucracy, punishment centered bureaucracy, and representative bureaucracy) existed side by side in one organization. Echoing Barnard's emphasis on communication, Gouldner postulated that the

circumstances under which orders are given and received, one or the other of these types of bureaucracy would predominate.

These subsets of bureaucracy were associated with the physical operations of the plant which consisted of a mining operation, a surface factory, and a common administrative unit. The case study documents how the physical and social structure of an organization constrains as well as permits social interaction which affects performance. This theme, omitted by Weber's formal theory of bureaucracy, is reflected in the Roethlesberger and Dickson study and elucidated by Gouldner. The work performed by miners enabled them to have close physical and social contact. As a result, they experienced a high degree of cohesion. The plant workers, however, were more separated on their jobs, had less social contact and a lower degree of cohesion. These conditions produced a marked difference between the two groups' attitudes toward authority. For example, the pressure for and acceptance of discipline or unquestioning obedience to authority were greater on the surface than in the mine.

Gouldner also indicated the possible kinds of authority conflict between the "expert" and the "true bureaucrat" within an organization. He observed and documented the subordinate position of the professional in relation to the administrator. The "expert", according to Gouldner, could advise but not command in his position as staff authority. Real promotions were given to the production (line authority) people. Finally, "experts" were not as likely to be spoken of a "loyal company men".

Gouldner also went to great extremes to define the community setting in which the gypsum plant was located, the cultural backgrounds

of the employees, and how the extraorganizational social structure affected social intercourse in the plant. Supervisors and workers developed informal relations on the job that reflected their years of living together in the same neighborhood communities. Such environmental concerns were of great importance in defining the subsets of bureaucracy and the formal and informal interaction in the plant.

These authors examined the structure of the organization and its effects on formal and informal relationships. The Human Relations school, concentrated on the informal work situation, internal communication, and social-psychological variables. At the same time it neglected Weber's major contribution to the study of organizations, viz., its formal structure. The early papers by Merton, Blau, and Gouldner contributed to a reappraisal of dynamic processes (Human Relations concerns) within the formal parameters of the organizational structure (Weber's concern) and demonstrated a relationship between structure and social relationships. Merton focused on the negative personality characteristics and interaction resulting from bureaucratic conditions. Gouldner demonstrated how the organizational constraints of the new manager's position afforded the opportunity to rely upon formalistic bureaucratic rules and regulations. Finally, Blau showed how formal organizational rules can produce non-prescribed behavior through informal activity.

These early studies also indicated an attention to how the external environment may affect the organization's internal activities; for example:

- Weber's attentions to societal conditions that contributed to

the rise of bureaucracies;

- Barnard's definition of organizational survival and a four-fold internal economy for the organization;

- Merton's concern with clients as they enter the work flow of public bureaucracies;

- Blau's attention to the larger political and social forces outside of the government agencies; and

- Gouldner's awareness of the industry's community setting and the incorporation of community values into the organization.

All five of the authors demonstrated an awareness of the constant interplay between the environment and organizational processes, even though the primary emphasis of these studies focused on the formal and informal structures of complex organizations.

This review provides the necessary information to define the central concepts used in this study as well as to state some basic assumptions and related propositions for the present research.

General Propositions

Definitions

A. Environment: all the systems of action beyond the boundaries or legitimate control of a particular organization. Two principle categories are: situational and behavioral. The first type follows Weber's conceptualization; the second is more in accord with Barnard's thought.

(1) Situational environment: general cultural conditions associated with political, economic and religious

values and norms of a society.

(2) Behavioral environment: interaction patterns between and among other relevant organizations, usually within the same physical area. The definition of environment for this study is the behavioral environment.

B. Organizational Structure: internal dimensions or features of an organization that serve to establish and define the type and range of goal-oriented activities as performed by members of the organization. This is the definition that will be used in the present study.

C. Internal Social Processes: activities on the part of two or more individuals designed to achieve organizational and personal goals. Here we can distinguish between formal and informal processes. Formal social processes are those for which specific sanctions exist in the organization's rules and regulations. Informal social processes are those which occur through normal social interaction and for which no formal sanctions exist. The definition of internal social processes for this study is the latter of the two just mentioned.

Assumptions

A. Organizations exist in an environment composed of other organizations.

B. Organizations are not impervious to their environment.

C. Organizations exist to achieve desired end-states in their environment (i.e., goals) through goal-oriented activity of their members.

D. Goal-oriented activity is expressed through both formal and informal social processes.

E. Informal social processes are more susceptible than formal social processes to influences from outside the organization (i.e., the environment).

F. Influences from outside the organization affect the desired end-states of organizations.

Propositions

Recognizing the interplay between the organization's goals, its relevant environment, and internal social processes, I can state the following general propositions:

1. The amount of environmental activity directed toward an organization varies directly with the variety of organizational goals.
2. The intensity of environmental activity directed toward an organization varies directly with the specificity of organizational goals.
3. The greater the amount of environmental activity received by an organization, the greater the intensity of internal social processes within the organization.
4. The greater the intensity of environmental activity received by an organization, the greater the variety of internal social processes within the organization.

Recent Theories of Organizations

Weber's treatment of economic organization places "technology", "techniques", and "economical means" as appendages to profit-making

organizations rather than as integral processes of organizations. (See Henderson & Parsons, 1964: 160-162) On the other hand, Roethlesberger and Dickson (1939: 553ff) defined technology as part of the internal industrial environment and demonstrated a relationship between the "technical" and the "human" organization of the plant. The interplay between the technical and the human organizations was defined as reciprocal adaptations to concomitant changes in both spheres. Thus, the dual nature of technology, being both outside the formal organization yet integral to internal organizational processes, is evident even in these early writings. In the more recent organizational literature, the dual nature of technology remains, but the associations among technology, structure, and organizational processes become more distinct.

Thompson and Bates (1957), reflecting these early concerns about technology, were among the first to categorize types of technologies. They examined data on four diverse kinds of formal organizations: mining, manufacturing, hospitals, and universities. Making no attempt to establish technology as being completely external nor internal to these organizations, they defined technology as: "sets of man-machine activities which together produce a desired good or service". (1957: 325) They described these man-machine activities in terms of: a) adaptability to changes in organizational goals, and b) the ratio of mechanization to professionalization. The two distinctions were based upon the extent to which "technology" was based in human as contrasted with non-human resources.

Thompson and Bates also rated the organizations in terms of the

"degree of concreteness" (or tangibility) of their goals, as expressed through the organizations' products. For example, mines and manufacturing plants would have more concrete or tangible goals; hospitals and universities would have less tangible goals. Building on these distinct aspects of technology and goals, Thompson and Bates formulated a series of propositions. Their major hypothesis was that organizational structure (defined as: levels of hierarchy, centralization of authority, and reliance on rules) together with administrative procedures (such as: policy formation, resource management, and execution of work sequences) will vary as a result of the concreteness/abstractness of the goals and the adaptability/non-adaptability of the technology. This results in a four-fold division of administrative and structural concerns which reflect the organization's abilities to adapt to the exigencies of their environments. Thompson and Bates' conclusions demonstrate how various combinations of goal tangibility, adaptability of technology, and ratio of mechanization to professionalization contribute to differences in the administration of large-scale organizations.

Udy (1961) also focused on the administration of complex organizations and contributed to the testing of Weber's bureaucratic model. Not satisfied with arguments which relied upon "informal organization" to explain variations in internal administrative activities, Udy postulated that "technical" and "institutional" variables produced differences in administrative styles. Using the Human Relations Area Files, he isolated variables for measuring technology, administration, and an institutional system. In this unique manner, he demonstrated

that technology, defined as a "system of activities performed on raw materials by members" of a production organization, is positively related to authority and rationality in administration. At the same time, Udy observed how the institutional system affected authority and rationality, showing how values and norms that encourage and motivate individuals to work exist independently of the production organization. But, due to the organization's social involvement and the scope of its reward system, these values and norms enter and affect the administrative system. Udy generalized from this pre-industrial data to present-day organizations by suggesting that his findings have relevance for the Human Relations Model of organization.

One criticism of Udy's work is that, in pre-industrial societies with relatively simple structural differentiation, the societal (or social organization) aspects may greatly overlap with the formal (or complex organization) aspects of the production organizations; moreso, perhaps, than what would be true for modern society as demonstrated by Gouldner. But more importantly, Udy's analysis shows a relationship between technology and internal administrative processes. He demonstrates that the amount of knowledge available in a society affects the degree of rationality and levels of administration (or authority) in any organized undertaking.

In dealing with the different modes of looking at organizations and the problems encountered by comparing Weber's ideal type with reality, social scientists have presented differing approaches to analyzing bureaucracies. Litwak's approach (1961) reflects his interest in explaining organizational behavior by focusing on goal related tasks. He attempted to demonstrate how the structure of an organization

reflected the "events" or tasks with which it had to deal as well as the manner (techniques) in which the events were handled. Litwak defined these tasks as "uniform" events (i.e., recurrent, standard, anticipated, emphasizing technical skills) and "non-uniform" events (i.e., sporadic, extraordinary, unexpected, emphasizing social skills). He postulated that the Weberian model of bureaucracy was compatible with uniform events; the Human Relations model with non-uniform events; and a third, the Professional model, covered tasks associated with both uniform and non-uniform events.

Litwak's organizational typology is important because it fills in part of the gap in the Thompson-Bates continuum of technological adaptability and ratio of mechanization to professionalization. Litwak is concerned with those areas of "non-uniform events" which were neglected in Thompson and Bates' earlier thinking. Secondly, Litwak presents the first real measurable approach to deal with conflict within formal organizations. The distinguishing characteristic of the Professional Model is its inclusion of contradictory forms of social relations that deal with both uniform and non-uniform tasks. This model is particularly relevant to most large-scale organizations today. Litwak suggested a series of segregation mechanisms for coordinating these potentially contradictory internal social relations. Thus, he set the stage for a further extension of Blau's work on the relationship between informal work processes and formally institutionalized practices among professional and/or para-professional offices.

Further considerations on technology and organizational structure can be found in the writings of Woodward (1965), Perrow (1967), Pugh, et al. (1963; 1968; 1969; 1971), and J.D. Thompson (1967). The

importance of these individuals and their works cannot be overestimated in this section of the organizational literature. Joan Woodward, as a result of her findings, became for awhile a modern-day Luddite among the Taylorites of England.[1] She was among the first to provide empirical proof of a direct association between technology (defined as the relationship between means of production and the final product) and the structure of the modern work organization. In a study of 92 English firms, she isolated three types of technologies:

a) unit and small batch - the production of prototypes or articles fitting the customers' individual requirements;

b) large batch and mass production - assembly line production of large numbers of items for customers; and

c) process production - continuous flow production of articles or products (e.g., liquids, gases) adaptable to the uses of the customers.

Her findings indicated that the structure of the industrial organization was directly affected by the technology employed. As one moved up the scale from unit and small batch to the continuous flow form of production technology, it became increasingly possible to exercise greater control over manufacturing operations. Moreover, the span of control by chief executives (those responsible to the policy-forming bodies of the organizations) and the ratio of managers and supervisors to non-supervisory personnel also increased from unit

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[1] Woodward acknowledged the controversy which followed the publication of her booklet, Management and Technology, in 1958. For many of her colleagues, the conclusions drawn in this early publication were perceived as threats "striking at the very roots of . . . technical colleges and elsewhere in the field of management education" in Great Britain. (See Woodward, 1965: 245-246.)

to process production firms.

In terms of the roles and functions of these same chief executives, "management by committee" was more common in process industry than in the less complex systems. However, Woodward also noted that firms at the top and bottom of the technology scale resembled each other in a number of other categories. Flexibility in the delegation of authority and in the decentralization of decision-making in small batch and in process industries was greater than in the large batch-mass production industry. There was a more rigid application of line-staff organizational distinctions in the large batch-mass production industry than in either of the other two types. This latter type of organizational distinction also appeared in the communication methods of the three types of industries. The amount of written communications, e.g., memoranda, policy directives, and operating instructions, in the mass production organizations was greater than in the small batch and in the process industries.[2] These findings from Woodward's study demonstrate distinct relationships between technology and structure.

Another research approach out of England is the work of the Aston group. Pugh, Hinnings, Hickson, and others, in a series of articles published over the last ten years, have attempted to empirically reconcile the theories of bureaucracy with actual organizations. The Hickson, Pugh and Pheysey (1969) article attempted to resolve the issue of whether or not technology determines the structure of an organization. They initially postulated a three-fold classification of

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[2]Her research workers even found it easier to obtain information from the unit production and the process production firms than from the large batch-mass production firms.

technology, viz., operations, material, and knowledge technologies. However, in this report, they only discussed the relationship between "operations technology" (defined as: the equipping and sequencing of activities in the workflow) and structure.

After extensively detailing their measurements and comparing their procedures and findings with Woodward's, they concluded that technology is generally related to structure but that it always takes second place to size of the organization, defined as: the number of employees in the organization, net assets of the organization, and number of employees in the parent organizations. (Pugh, et al., 1969: 97). The smaller the organization, the more completely its structure (i.e., administration and hierarchy) is pervaded by the immediate effects of the technology; the larger the organization, the less completely its structure is affected by the technology. They also concluded that operations technology affects only those structural variables (e.g., vertical span of control, percentage of workflow subordinates to total employees) immediately impinged upon by the workflow. In retrospect, these findings are not too terribly surprising mainly because of the operational definition of technology itself. If technology is defined as workflow, it is only natural that it would affect structural workflow variables. But the study does raise an important issue, viz., size, a variable that appears to be almost as problematic to deal with as technology. In a recent article, Howard E. Aldrich (1972) reexamined the findings of the Aston group in relation to technology, size, and structure. Through "theory-oriented path analysis" on the published data of the Aston group, Aldrich demonstrated that technology was causally prior to both size and

organizational structure, and, secondly, that size was inadequately conceptualized by Pugh and his associates. While not laying the argument to rest, Aldrich concluded by stating that an adequate resolution of the size, technology, and structure dilemma appears to lie in longitudinal rather than cross-sectional data.[3]

Perrow's contribution (1967), on the other hand, synthesized the material on technology and organizations. He distinguished between action performed upon an object in order to change it (technology), and individuals interacting with other individuals in the course of trying to change an object (structure). Echoing Thompson and Bates', Litwak's, and Woodward's typologies, he further demonstrated how organizations could be analyzed through constructing and overlapping various continua concerned with the materials and technologies of the organizations.

Also important is Perrow's stance on the relativity of dependent and independent variables in the examination of raw materials, technology, task and social structure, and organizational goals. He claims that assertion of a variable's dependence or independence, in a highly dependent social system as the organization, is more a "strategy of analysis" than an "assertion about reality". The claim appears to be borne out by his lengthy review of the literature.

Perrow, in this article, deliberately ignored the "cultural and social environment" as well as the "product environment" of organizations. His perspective focused solely on the internal organizational

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[3]Kimberly (1976), in a review of 80 organizational studies, comes to a similar conclusion. He also suggests that a distinction between manufacturing and service organizations would help clarify the size-technology-structure argument.

aspects of technology and structure. This is important because Perrow's article serves as a watershed marker among studies that emphasized organizations as "closed" or isolated entities and those studies which define the organization as "open" to varied and subtle influences from the environment.

J. D. Thompson (1967) also finalized his ideas at about the same time as Perrow. Although more concerned with the relationship between the organization and its environment, Thompson contributed another approach to understanding technology and structure within the organization. Thompson defined technology as "instrumental action rooted on the one hand in desired outcomes and on the other hand in beliefs about cause/effect relationships". (1967: 14) He defined structure as the "internal differentiation and patterning of relationships" within the organization. (1967: 51) It is in this context that he speaks of technology as technical rationality.

Thompson defined three types of internal operations, or technologies, which can be found either singly or in combination in any organization and form a Guttman-like scale. These are:

a) pooled interdependencies - each part renders a discrete contribution to the whole and each is supported by the whole; however, no direct interaction is necessary;

b) sequential interdependencies - all parts contribute to the whole, but direct and ordered interdependencies can be specified;

c) reciprocal interdependencies - each unit is penetrated by the other; each unit poses contingencies for the others in the sense that the outputs of each may become inputs for others. (1967: 54-55)

He then defined three appropriately parallel coordinative structures, which could also exist singly or in combination in the same

organization and also form a Guttman-like scale. The definitions of the coordinating mechanisms are:

a) coordination by standardization - an internally consistent set of rules "which constrain action of each unit . . . into paths consistent with those taken by other units";

b) coordination by plan - the establishment of schedules for the interdependent units but without the high degree of stability and routinization required by standardization;

c) coordination by mutual adjustment - a flexible set of rules that allows for the "transmission of new information during the process of action." (1967: 56)

The application of this analytical frame is that an organization would demonstrate greater or lesser degrees of bureaucratization (i.e., rationality and formalization) according to the kinds of interdependence and the corresponding needs for coordination. For example, a flatter hierarchy may be associated with pooled interdependence and standardized coordination; a taller hierarchy with reciprocal interdependences and coordination by mutual adjustment. These concepts could perhaps be related to Woodward's study as well as help explain Udy's findings on bureaucracy and rationality in pre-industrial society.

Perrow's and Thompson's analyses of the relationships between technology and structure were recently criticized by Argyris (1972), who states that he recently became interested in the issues of "effective action", i.e., the applicability of knowledge in organizations. (1972: viii) He confronted Blau, Perrow, Thompson, and others with the idea that "their theories would tend to emulate and reinforce the status quo, and if an activist were to use these theories as a basis for change, he would become an authoritarian manipulator . . . ." (Ibid.) Furthermore, he viewed their works as being theoretically weak because of excluding such variables as: personality, interpersonal

relations, and group dynamics.

While Argyris does bring an inter-disciplinary perspective to the study of organizations, some of his criticisms of Thompson and Perrow are spurious. For example, he quotes Perrow as saying that technology is always an independent variable. (Argyris, 1972: 35) But, as I have just indicated, Perrow recognizes that claiming the dependence or independence of variables in organizations is an analytical strategy rather than a definitive statement about reality. (Perrow, 1967: 194) Argyris also states that Thompson's internal dependence and coordinating mechanisms for structure and technology are inadequate for coping with changes in a dynamic environment. He observed that this may be especially true when an organization is faced with the problem of going from pooled to reciprocal interdependence. (Argyris, 1972: 30) But, Thompson did recognize what he called "very real costs involved in coordination" regarding communication and decision-making if a transition were necessary. (Thompson, 1967: 56)

Argyris also criticized Thompson and Perrow for not focusing on the psychological and group dynamic processes within the organization. He contends that if both authors want to treat "organizations in the round" (Thompson, 1967: ix) or "organizations as wholes" (Perrow, 1967: 195), they should at least provide some definition of these concepts. For Argyris, this means having an explicit model of man. This is a valid criticism. Even though Thompson and Perrow define these concepts, they do not include any psychological connotations. The variable "human" is an important element in the formal organization.

If social scientists are attempting to understand organizations "as wholes", Argyris' contention that psychological variables are just as important as structural variables is a valid one. With more knowledge on both the psychological and sociological level, sociologists may eventually be able to deal with merging the two analytical levels in organizational studies.

Professionals in Organizations

The inclusion of professionals as a measureable unit in the study of bureaucratic organizations is important. Too often the incumbents of organizational positions are viewed as simply bureaucrats, clerks, or managers. This myopia reduces the salience of those professionals who, rather than practicing on their own, are becoming affiliated with formal organizations. Lawyers, medical doctors, scientists and engineers, social workers and counselors are filling positions in many different kinds of complex organizations.

Hall (1975) suggests that the definition of professional includes the following: high status, specialization, visibility, and power. Characteristically the work setting for such an individual is that of a solitary practitioner. In this setting the professional is seen as a free, autonomous individual; especially regarding who become clients, diagnosis and/or treatment, fees, etc.

A second work situation that is emerging is the professional organization, e.g., law offices, medical clinics, architectural firms. The professional in this situation reduces his autonomy and works with others of the same status. In such a partnership, major policies and decisions are made in common for the good of the clients as well as

the "professional association". Also, if there are a number of specialties in the same organization, clients may be referred to one's partners more easily and quickly for the convenience of the client. The third basic setting, according to Hall, is the professional department within the larger organization. In this setting it is often assumed that professional standards come in conflict with organization, i.e., bureaucratic, standards.

Scott (1966) suggests that the basis for the professional-bureaucrat conflict rests upon the differences in role expectations. The professional is socialized into one form of behavior which contributes to a self-perception supposedly antithetical to the behavior considered appropriate within the formal organization. The normative demands of bureaucracies and professionalism thus generate role conflict. This has especially been demonstrated in the field of education. (Corwin, 1965; Havighurst and Neugarten, 1967) Hall advises, however that, in addition to negative consequences, such conflict may have positive results in the sense of producing needed change. A second positive outcome is that the coordination and communication functions of a bureaucracy often facilitate the work of professionals. This is especially true where the legitimacy of the hierarchy is reconiazed; as a result no conflict occurs. (Hall, 1975: 111)

Such information is especially pertinent for the study of health and welfare organizations. The specific mix of the professional-bureaucrat ratio may be an important structural variable for studying interorganizational relations and internal social processes. Given a high or low professional-bureaucrat ratio, similar environmental influences may have different effects upon social processes within

identical organizations. This regard for two types of "experts", i.e., bureaucrat and professional, within the same organization may also be tied in with the Thompson-Bates and the Perrow continua for examining the role of technology in the study of formal organizations, and for Litwak's "uniform-non-uniform" kinds of tasks. Gouldner's distinction between the "expert" and the "bureaucrat" may also be apropos. (1954) Differences in efficiency and effectiveness among organizations producing similar or identical outputs may be explained by the degree of professionalization of the organization.

All of the items cited in this section reflect a concerted effort at explaining major variables of organizational structure, especially technology. But, we must turn to an examination of the relationships between the organization and its "environment" to obtain a more complete understanding of structure, technology, and internal organizational processes. Perrow, for example, suggests that there may be cultural and social environmental considerations which could define appropriate raw material, technology, and goals for the organization. Another type of environment which is important is the "product environment" where customers, competitors, unions, and regulatory agencies also affect internal organizational procedures. Thompson, too, suggests that organizations act (or react) when faced with external, as well as internal, constraints on their technologies. The assumptions of Thompson's model, based on the Simon-Cyert-March approach to organizations, is "that the processes going on within the organization are significantly affected by the complexity of the organization's environment." (Thompson, 1967: 9) These considerations allow for the application of the open systems approach to the study of

organizations.

Open Systems Theory

A growing number of authors (Parsons, 1951; Katz and Kahn, 1966; and the collection of papers by Maurer, 1971) have begun to examine organizations in the light of a more emcompassing theory generally referred to as the "open systems approach". There are two basic objectives in this approach: first, to understand better the internal workings of complex organizations through examining the impact of "environment" on the organization, and, secondly, to arrive at more precise principles concerning complex organizations and the over-all social structure in which they are found.

Katz and Kahn (1966) and J. D. Thompson (1967) argue that considering organizations as open systems rather than closed is a more natural way to study the organization. Part of their argument is that attention is focused on three important but neglected aspects of formal organizations, viz., the nature of feedback mechanisms; the extent to which organizations are dependent upon inputs from the environment; and, finally, changes produced in the organizational structure by this dependency.

The basic argument of the open systems approach to the study of organizations is an examination of the exchange processes that the organization has with its environment. (For example, Parsons, 1968: 460) Avoiding a complete exegesis of the general systems approach, nine basic characteristics of the open system as applied to formal organizations are as follows:

a) importation of energy or resources from the environment;

b) transformation of this input within the organization;

c) exportation of the product back to the appropriate section of the environment;

d) the internal resources of the system or organization;

e) negative entropy, i.e., survival by importing more energy from the environment than it expends;

f) the components of the system or organization;

g) the management of the system;

h) differentiation, i.e., the multiplication and elaboration of roles with greater specialization of function;

i) equifinality, i.e., the principle that the system can reach the same final state from differing initial conditions and by a variety of paths. (Churchman, 1968; Katz and Kahn, 1966.)

While this perspective may reflect reality, it is obvious that difficulties abound in operationalizing many of the above concepts.

Although Litwak and Meyer (1966) do not use the open systems terminology, their ideas are similar to concepts described by Katz and Kahn. In an article discussing the relationship between two supposedly antithetical entities, viz., bureaucratic organizations and external primary groups, Litwak and Meyer postulate a "balance theory of coordination". The impact of their article is that it anticipated and operationalized some of the linkages defined by the systems approach as existing between an organization and part of its relevant environment. By defining specific "mechanisms of coordination", they hypothesized relationships among kinds of primary groups (e.g., deviant, conforming, etc.) and types of bureaucratic structures (e.g., human relations, rationalistic, etc.).

While overtly concerned with achieving coordination between

organizations and groups in a community setting, Litwak and Meyer's article is pertinent for examining relationships among organizations per se through application of the "balance mechanisms". Thus, awareness of "social distance" and type of bureaucratic structure may contribute toward an understanding of communication patterns, coordination, and even conflict among formal organizations once the goal orientation is known.

The recent application of the open-systems perspective in the study of organizations among sociologists appears to neglect similar contributions to organizational analysis by the Human Ecologists and Economists. For example, Duncan (1964: 37-82) and Hawley (1950) present excellent summaries of the early human ecology literature. Many of the concepts they defined appear congruent with some present emphases in interorganizational studies. For example, Duncan emphasizes looking at "the subject of ecology from the standpoint of 'mutual dependence' as a govening principle". (Duncan, 1964: 37) He then defined the following three types of dependencies in the natural ecological order:

a) dependence on others of like kind (intraspecies);

b) dependence of several kinds each upon at least some of the others in the interspecies community; and,

c) dependence, either indirect or immediate, of all organisms upon the inanimate environment.

These types are helpful for examining dependencies and relationships among formal organizations. They appear especially pertinent for community studies, where organizations with a variety of goals and structures exist, and where all the organizations could be included

as units of analysis. Goal oriented activities are useful criteria to differentiate organizations into "species". Focusing on these types of dependences among organizations with different goals allows for a clearer view of interorganizational relationships. Recently, Hannan and Freeman (1977) reviewed a variety of models contrasting adaptation to competition and selection in what they called the "population ecology of organizations". In order to establish the "species analogue" for organizations within a particular boundary, they suggest using the organizations' formal structure, internal patterns of activities, and the normative order of the organization as criteria.

Duncan also examines three types of "flow", which may prove applicable in the study of interorganizational relationships, within the ecosystem, viz., material, energy, and information. Matter forms the raw material and output product for organisms, which expend energy in acquiring the materials and processing them for their stored energy. The maintenance of the structure of the organism calls for information or "instructions" as to how its energy is to be used, so that its efforts are not random but patterned or directed. (1964: 37-39) Interorganizational processes are also concerned with similar flows in terms of material, techniques or technology, and symbols.

A third comparison from this article with interorganizational processes is the <u>pattern</u> that the flow of energy, material, and information takes with respect to the ecosystem and the organism itself. This comparison is especially pertinent for operationalizing some of the concepts included in the open-systems approach. Duncan (1964: 41) states that the "flow" can be examined from the standpoint of the following processes:

a) entry into the system;

b) transformation through the system;

c) transfer from one unit or level to another;

d) accumulation, storage, and retrieval at points within the system;

e) application to some unit part of the system; and,

f) dissipation, i.e., temporary or permanent loss to the system.

These concepts parallel those presented by Churchman and by Katz and Kahn in discussing open-systems.

Hawley's approach to the study of human communities, also demonstrates the adaptability of the ecological approach to the study of interorganizational relationships. In defining the ecological perspective, Hawley (1950) presents some interesting ideas that can be compared with a number of organizational considerations. For example, in treating the "struggle for existence", Hawley mentions the reproductive power of nature (e.g., one oyster produces 20 million eggs) and the fact that not all the new organisms live nor do they all realize their full potential. We can compare this idea with Stinchcombe's (1965: 142-93) treatment of the "liability of newness" among complex organizations in their formative period. The organizations that exist are the successful ones, while innumerable others have not survived. This concept of survival is important in both the ecological and the organizational literature.

Secondly, Hawley mentions that organisms can adapt to their environment. But, this adaptation may not always be passed on to their progeny. This demonstrates that survival may be relative to the circumstances in which the organism lives. A parallel consideration for

complex organizations was brought out by Barnard (1938). The survival of the formal organization, said Barnard, depended upon a quadruple economy of forces within the organization in order to maintain its equilibrium in a "continuously fluctuating environment". Anthony Downs (1967) also emphasized the survival factor of a complex organization with relation to its environment.

A third important consideration is Hawley's description of the organization of the biotic community. Especially important for my study is the distinction he makes between habitat and environment. For Hawley environment is:

> all the externally emanating influences that impinge upon an individual or an aggregate of individuals, whichever happens to be the unit of observation . . . . (T)he various occupants of an area may correctly be considered as environmental to one another . . . . (1950: 43)

On the other hand, habitat is defined as:

> the place of abode of the organism, species, or association of species, solely in terms of the inorganic features present. The merit of this definition is that it draws a sharp distinction between . . . the adapting organisms and that to which they must all adapt. (1950: 43)

This distinction is important for looking at organizations as being environmental to one another while they exist in the same general area under similar conditions. In Hall's terminology, this distinction is, respectively, specific environment and general environment. (Hall, 1972: 298ff.) The difference is important because it provides a basis upon which environment is defined in this study as interorganizational relationships.

A fourth important element that Hawley considers is the distinction between symbiotic and commensalistic types of interdependence.

(1950: 37-40) The former refers to mutual dependence among unlike organisms; the latter, mutual dependence among similar oganisms. Parasitic relations are one type of symbiotic relations; competition is one form of commensalistic relations. The organizational conceptualizations we can tie in here are specialization and cooptation. Starbuck (1965: 471) places great emphasis on size and behavior strategies among organizations in the society in which they are found. That larger organizations, as well as specialized organizations, can adopt aggressive strategies and make or break alliances with other organizations more readily than smaller and/or non-specialized organizations is apparent in Starbuck's article in a variety of ways.

These few comparisons indicate the theoretical importance of the ecological perspective for interpreting and understanding organizational relations and the environment in which they occur. Moreover, it should be apparent that Hawley draws a direct parallel to the individual formal organization from his study of the biological ecosystem, i.e., much of the focus of ecology is upon relationships among individual organisms not the species. However, a direct comparison is precluded, at this point in time, because of obvious animation differences between biological organisms and formal organizations.

One person who did not hesitate to draw out a direct comparison between organisms and organizations is Kenneth E. Boulding, who compares social organizations (i.e., formal complex organizations) to biological organisms within the perspective of an ecological framework. (1953) He argues that enough similarities exist between biological organisms and social organizations to include both as parts of a group of "creatures which might be called behavior units or

behavior systems". (1953: xix) The major similarities between these two creatures are their responses to environmental factors and their life cycles. The two major differences are in their reproductive processes and their processes of consciousness. After strengthening his ecological argument, Boulding examined the growth in size and importance of organizations in post-World War II American society in what he labelled the "organizational revolution".

Boulding's principal concern was the control which the organizations exert over their environments. He explored this by focusing on two general aspects of the complex organization, viz., the demand side and the supply side. Organizational growth, he explained, is due to the organization's skill to control its environment in both sectors. This skill involves improvements in transportation and communication technologies; product differentiation and a "professional organizer" who sells the organization to its environment; and, finally, positive values of growth and attempts to correct disproportionalities. Boulding's emphasis on the organization's ability to grow and effect change in the environment reflects his emphasis on an implied "ecological unity" of the organizational environment.

Other economists also have considered the relationships among organizations and their environments, although not in the strict ecological framework as Boulding. A major branch of economics deals with markets and industries, viz., price theory. Caves (1967) presents a summary of much of this material concerning American industries, their economic performance, and government policies within a framework comparable to Boulding's. In many respects, economists and managers of business enterprises have long dealt with an "open systems

perspective" in fact if not in name. These individuals have been in a position to observe, gauge, and judge phenomena as: their competitors' reaction to each other; consumer response to old and new products; implications of government policies; changes in the labor market; and discovery of new raw materials.

Some perspectives from Caves that are relevant to our present concerns are:

a) competition among firms (organizations) in terms of seller concentration in the industry, i.e., percentage distribution of sales among the largest producers;

b) differentiation among firms as related to recognizable similarities or dissimilarities in products; and,

c) barriers to entry in a given industry as measured by the "highest price which will just fail to tempt new firms into the industry".

These three factors - seller concentration, product differentiation, and barriers to entry - are the important elements (among others) of an industry's market structure (i.e., the firm's economic environment) which are applicable here.

It must be remembered that industry is used here as a generic term, i.e., "the sellers participating in a given product are called collectively the industry producing that product". Firm refers to the individual organization in a particular industry. A market includes a "group of buyers and sellers of a particular product engaged in setting the terms of sale of that product". Market structure refers to the "economically significant features of a market which affect the behavior of firms in the industry supplying that market". The main

elements of market structure are: concentration, product differentiation, barriers to entry, growth rate of market demand, price elasticity of market demand, and ratio of fixed to variable costs in the short run. (Caves, 1967: 2-16)

These lengthy references to Caves provide for parallel considerations in the social service "industry". These terms may be applied in reference to percent distribution of social services in a community (concentration); differences in output, i.e., product differentiation (what the client is anticipated to be like after going through the social service agency); and, finally, entry barriers in terms of costs involved in setting up new agencies or keeping old ones going (e.g., federal and state laws, personnel shortages, and legitimacy). If nothing else, the above extrapolations demonstrate how ecologists and economists have utilized the open systems theory in their disciplines and how a similar perspective is applicable for the sociology of complex organizations.

One adaptation to the open systems approach has already occurred in the sociological study of interorganizational relations. With moderate success, the open systems model is being utilized by a number of authors interested in organizations. Central to all their concerns is understanding the specific manner and circumstances in which formal organizations interact and then, predicting the results of these interactions.

Litwak and Hylton (1962) were early pioneers in examining organizational interaction. However, rather than focus directly on interorganizational relations, they elected to develop a theory concerning the rise of formal coordinating agencies among social service

organizations. In somewhat of an ecological vein, they postulated the existence of competitive and facilitative dependency relations among organizations. Then, reminiscent of Litwak's earlier work on equilibrium among community organizations, they hypothesized that coordinating agencies are mechanisms whereby some degree of balance is maintained between the competing and noncompeting activities of organizations in the same field.

In a more recent publication, (Litwak and Rothman, 1970) these same ideas are expanded and formalized. Conditions of dependence are analyzed in terms of the circumstances under which organizations come into contact with each other. These various circumstances, defined as: formal and informal links, adjudicatory versus communication strategies, autonomous and independent links, and authoritarian versus collegial links, become networks of coordination systems. Thus, Litwak and Rothman set aside the formal coordinating agency to focus on a confederation of organizations; an approach more amenable to interorganizational analysis as well as the analysis of conflict among generally compatible organizations.

Levine and White (1961) conducted one of the first studies on interorganizational relations. They examined the activities of health and welfare agencies in a medium-sized city by focusing on exchange as their theoretical framework. They assume that not every organization has complete control over all the necessary elements it needs for goal attainment. Levine and White define these elements as:

a) clients;

b) resources, in the form of equipment, information, and funds; and, finally,

c) services of people who direct the resources to the clients. These exchange elements are analogous to the "flows" of material, energy, and information in the ecological community as defined by Duncan.

Building their ideas on social exchange theory, Levine and White define organizational exchange as "any voluntary activity between two organizations which has consequences, actual or anticipated, for the realization of their respective goals or objectives". The advantages of this definition are:

a) reciprocity is not exclusively intended;

b) other than material goods can be exchanged; and,

c) no coercion or dominance is implied.

Although their model follows a "consensus approach" to the study of interorganizational relations, Levine and White demonstrate that status positions, dependency relations, and competition do occur among health and welfare organizations in the community. For example, in terms of services or objectives, treatment organizations (those that provide a direct service, such as X-ray examinations, polio immunizations) have a higher referral rate and higher prestige than non-treatment organizations. Secondly, dependency relations among organizations within the community are mitigated by relations with parent organizations and/or reference group organizations outside the community. Finally, when organizational domain is poorly delineated, intense competition may occur among agencies offering the same services, especially when other agencies have no specific criteria for choosing one similar agency over another. If services are being operated at less than capacity, competition and conflict usually intensify.

Turk (1973) also examined relations among organizations in a community setting. However, his approach differed in that the type of community is a factor in explaining specific interorganizational relations. In his study of the formation of hospital councils, he found that two variables used to describe communities, viz., scale and diversity of municipal governments, and scale and diversity of voluntary organizations, account for a large percentage of the explained variance in the formation of hospital councils. He also found that the same two variables affect the marketlike conditions in which a supply and demand for interorganizational relations occurs. This second conclusion reflects some of the economists concerns[4] about market structure and the industry's and the firm's roles in the market. It also demonstrates how economic concepts may be operationalized to conform to organizational studies of the social service sector.

Another perspective in examining conflict among organizations is that of Howard Aldrich (1971). He studied small business firms as boundary maintaining systems coping with inter- and intra-organizational conflict. Through focusing on contributions by Buckley (1967), Weber, and Etzioni (1961b), he demonstrated how authority, as control over organizational boundaries, is theoretically linked to member compliance. Membership definition, according to Aldrich, is a key concept for defining organizational environment and boundaries. He suggested that given the conditions under which inter-organizational conflicts exist, organizations will constrict or expand their boundaries (i.e., exclude or include persons or groups) in order to secure member

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[4]See my section on Caves.

compliance.

Aldrich's perspective demonstrated the feasibility of studying organizations through a combination of the open systems approach and traditional organizational analysis. However, two criticisms of his work are pertinent. He appears to misread Barnard's definition of what constitutes organizational membership and to neglect Hawley's definition of Ecology.

In deciding what constitutes a member of an organization, Aldrich makes no distinction between clients or "buyers" as members of an organization and providers (producers) or "sellers" as members. He quotes Barnard as saying that: "on the contrary, I included in organization the actions of investors, suppliers, and customers or clients". He uses this quote, as well as Weber's definition of member, in arguing that the greater the member autonomy, the more the organization is dependent upon its members. However, he appears to forget that the quotation from Barnard is applicable only if "industry" rather than "firm" is being considered as the organization. And it is the firm that Aldrich treats in his article.

The second criticism of Aldrich focuses on his perception of the systems, or organization - environment, perspective. I understand him to say that the application of the systems approach involves focusing on the species rather than the individual organism. This translates into focusing on the population of organizations rather than the individual organization. However, a careful reading of Hawley indicates that ecology is the study of the interrelations among

organisms.[5] If the systems approach to the study of complex organizations includes the ecological perspective, I submit that the study of individual organizations is valid and that Aldrich's emphasis is misplaced. While social scientists may be involved with a species or inter-species analogue to organisms in the study of organizational relations, this does not prohibit us from focusing on the individual organization.

An often cited article dealing with interorganizational studies is that by Aiken and Hage (1968). They argue for a relationship between organizational inter-dependence and the internal structure of organizations. As such, they use a rather strict definition of inter-organizational relationships, viz., interdependencies that take the form of "joint programs". They rule out, in this article, any other definition of interorganizational relations that exist and affect internal structure and they define structure in terms of internal behavior.

Conceptually, this article deals with the same subject as does my research, viz., the relationship between the environment and organizational internal processes. However, the direct application of Aiken and Hage's approach for my purposes is vitiated by their strict

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[5]"The unit of observation, it should be emphasized, is not the individual but the aggregate which is either organized or in process of becoming organized. The individual enters into ecological studies, on the theoretical side, as a postulate, and, on the practical side, as a unit of measurement. As something to be investigated in and of itself, however, the individual is subject matter for other disciplines. Ecology, as we have described it, then, is virtually synonymous with what plant ecologists call 'synecology' - the study of the interrelationships among organisms. . . . autecology - the study of the adaptations made by the individual organism throughout its life history - is excluded." (Hawley, 1950: 67) (Emphasis is mine.)

definition of interorganizational relations and their conceptualization of organizational structure.

Aiken and Hage alert the reader to the impact of environment on such organizational variables as complexity, communication, and centralization. Their findings indicate that the rate of internal communication and cooperation varies directly with the amount of interdependence and that centralization varies inversely with the amount of interdependence among organizations. Also, Aiken and Hage are among the first to introduce the variable - degree of staff professionalization - in the study of health and welfare organizations. They were also among the first to examine technology empirically by measuring the degree of work routinization in the agencies they investigated.

Applicability of Open Systems Approach

Theorists concerned with formal organizations have only recently recognized the developments in systems theory as practiced among the physical and biological scientists. (Negandhi, 1975: 1-3) Present attempts by social scientists to develop a systems perspective for the study of formal organizations are still rudimentary by comparison to the natural scientists' applications. The reason for such crudeness in the social scientists' thinking is the difficulty in conceptualizing interdependence and interlinking - two important attributes of a system- of the various subsystems. These two attributes "force one to think in terms of multiple causation in contrast to the common habit of thinking in single causal terms." (Negandhi, 1975: 2) Thus, we have sociological studies with broadly defined variables encompassing a variety of organizational types mainly because of the multitude of sub-systems and

of the inability to conceptualize and measure multiple cause-effect relations.[6]

Accordingly, Negandhi and other social scientists recognize that interorganizational studies within the open-systems approach fall into three general categories. These are:

> a) the examination of the impact of external environmental factors on the internal properties of an organization;
>
> b) group interaction among similar organizational units, e.g., organization set theory and task environments; and lastly,
>
> c) interaction among diverse kinds of organizations in a social system, i.e., field theory. (Negandhi, 1975: 4)

These three categories reflect the broad and neophytic applications of systems theory by social scientists to the study of formal organizations.

However, two ideas have recently emerged which could be applied to this issue of multiple causation. Moreover, these ideas form the basis for establishing the pattern of data analysis in the present study. Activity within an organization and the relationships among variables regarding technology and structure may both be more easily categorized if we accept the notion of "loosely coupled systems" (Weick, 1976) and begin to "conceptually disaggregate" factors or clusters used to measure the variables of technology and structure. (Stanfield, 1976)

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[6]This last point may be method-bound. In other words, standard methodological operations, such as deductive and inductive statistical measurements may be blinding social scientists to multiple causation. Add to this the innovation of the computer to accomplish more complicated statistical tests, factor and cluster analysis become standard procedure for viewing the world.

In examining educational organizations, Weick suggests that an understanding of internal organizational processes could be accomplished more easily if loosely coupled systems are recognized. In other words, linkages or "coupling", i.e., points of contact between elements such as variables, subsystems, or systems, are responsive to each other. The response may be immediate and direct, affecting the whole "element" (i.e., tight coupling) or slow and indirect, affecting only parts of the "element" (loose coupling). For "loosely coupled systems", Weick adds that each element also "preserves its own identity and some evidence of its physical or logical spearateness." (Weick, 1976: 3) In this application of general systems theory to educational organizations, Weick argues that the understanding of internal organizational dynamics for all types of organizations can be increased substantially.

The idea of loose coupling was presented in an earlier article by Robert Glassman (1973). Glassman addressed the more general question of how do systems maintain their relative stability in the face of moment-to-moment environmental change. In his global treatment of coupling, he states that a system whose parts are loosely connected (either within itself or with another system) can "maintain local stabilities which ignore limited perturbations elsewhere in the system" or in the environment. (1973: 84) In this sense, a loosely coupled system may "not actively defend itself against the imposing variables, rather certain features of the system may be said to insulate it, giving these (imposing) variables only limited access." (1973: 92)

Both Weick's and Glassman's treatments of loose coupling help in understanding the interdependence and the interlinking of variables

within and among formal organizations. The idea of loose coupling provides a perspective for interpreting Thompson's notations of operation technology and coordinative structures as well as the idea of "buffering" the organization's core technology. (Thompson, 1967)

"Conceptual disaggregation", the second idea mentioned as contributing to the plan of analysis in this paper, reflects Stanfield's concern with the diverse conceptual and operational definitions of technology and structure. His review of principle organizational studies concludes that the variety of findings concerning technology and structure reflect "tendencies to assume homogeneity within categories of variables and to neglect to explicitly draw the line between categories". (1976: 491) He suggests that researchers categorize their variables through suitable classification theories. A second solution is to examine the behavior of individual variables without factoring or clustering. Thus, the focus of analysis would pass from examining the operation of broad categories of variables to examining the behavior and the effect of individual variables. This latter solution is what he refers to as "conceptual disaggregation".

A recent work by Freeman (1973) provides an example of conceptual disaggregation. Freeman presents his findings as relationships between and among specific variables which measured environment, technology, and administration in manufacturing organizations. The small number of cases and the limited number of variables that Freeman dealt with provided him with the opportunity to examine his data in such a manner. Obivously, such a procedure would be overwhelming if hundred's of variables were included in a study. Stanfield's suggestion of conceptual

disaggregation is applicable in the present study because of the few cases and the limited number of variables.

The approach of conceptual disaggregation lends itself to studying organizations as loosely coupled systems by recognizing: a) the responsiveness of individual elements to each other within a system (or organization) and, b) their contribution to the whole system as they interact with other elements in the system's environment.

Summary

This broad, overarching review of organizational literature demonstrates the inter-connectedness among theories and studies that are separated by different time periods as well as by different foci of attention. Some studies were concerned with human service agencies, others with manufacturing organizations. Some were involved with internal sequential processes, others with effects of external variables on organizational structure and/or processes. However, these major and diverse concerns reflect a growth in knowledge about formal organizations and lead to conceptual clarification in light of general systems theory. Even though we speak of several schools of thought concerning organizations, the continuity and overlap among them indicates that a more inclusive, albeit rudimentary, model of formal organizations is possible. Such a model may include the following aspects:

a) general and specific organizational environment;

b) structure and purpose of the organization;

c) formal and informal internal processes;

d) psychological characteristics of incumbents; and,

e) clients or customers of the organization together with

their perceptions of the organizations' outputs.

In this review, four basic themes concerning the study of complex organizations were examined. They were:

a) formal and informal aspects of internal organizational processes;

b) the relevance of technology and structure for organizational goal-directed behavior;

c) extra-organizational, i.e., environmental, features of complex organizations; and,

d) the applicability of open systems theory to the study of formal organizations.

This study builds upon the information in the above review with the intention of contributing to a greater understanding of the interplay between formal organizations and their environment in the health and welfare field.

Adaptations of General Propositions for the Study of Health and Welfare Organizations

Given the above evidence concerning organizations and their environments, I can state the following propositions that guide the analysis of the data:

1. In general, the organizational environment (i.e., interaction) will reflect a high degree of competition as well as cooperation among organizations similar to one another. (This is the species analogy from ecology. Health and welfare agencies are treated as similar to one another because of shared types of goal directed behavior. Thus, these organizations are capable of helping each other while at the same time

competing for the same set of resources, precisely because of their similarity.)

2. The more varied the environment (i.e., the greater the diversity of environmental interaction impinging on organizations), the greater the diversity of responses within the organizations; viz., the:

a) greater the degree of competition and conflict (Blau, 1955: 59-63);

b) greater the exercise of vertical influence (Thompson and Bates, 1957; Udy, 1961);

c) greater the exercise of power at all levels throughout the organization (Barnard, 1938; Gouldner, 1954);

d) greater the degree of cooperation and support at all levels (Thompson, 1967); and,

e) greater the rate of overall communication (Aiken and Hage, 1968; Barnard, 1938).

3. In general, the organizational structure, through such morphological variables as: age; type of technology; professional-administrative ratio; and size of agency staff will diminish the effect of environmental impact on internal organizational processes. (In the face of a changeable, dynamic environment, structure helps to maintain the stability of the system. Examples of this argument are Glassman (1973) and Thompson (1967).

4. In light of the above proposition and given the model I am testing in this study, I propose that structure will mitigate the effects of the environment so that within the organization there will be a :

a) lower degree of competition and conflict;

b) lessening of the exercise of vertical influence;

c) lessening of the exercise of power at all levels throughout the organization;

d) lower degree of cooperation and support throughout the organization;

e) lessening of the rate of overall communcation.

METHODOLOGY

Data for the present study come from an extensive survey of social service agencies in two mid-western cities. The research project was under the supervision of Philip M. Marcus with the assistance of Ann W. Sheldon and Margaret J. Adams. In addition, several graduate students in numerous seminars on complex organizations in the Sociology Department at Michigan State University provided a variety of input.

The study was conducted in cooperation with the local United Way of America and other local social service agencies in the two cities between October, 1972 and July, 1974. The project collected a large array of data on the structure of social service agencies, the vast inter-relations among them, and the communities in which they are located. This large body of data has been partially analyzed. (See Marcus, 1974a, 1974b, 1974c; Sheldon, 1975) My work examines data from one of the cities and builds on and amplifies findings from some of these previous reports.

Sheldon (1975) extensively describes the research project from the initial planning phases through the collection and preliminary analysis of data. For a rather complete description of the entire project, the reader is referred to her dissertation. For this report, I will only include information from the overall project which is pertinent to my dissertation topic.

City characteristics have been defined as important for an

understanding of inter-organizational relations. (Turk, 1973, Sheldon, 1975) However, for the present, I am assuming that the interorganizational model I am testing is independent of community characteristics and, therefore, applicable to various types of communities. Nevertheless, in order to give the reader an idea of the type of city in which the social service agencies were located, I am presenting selected city characteristics and census data. This information also defines the community population that may avail themselves of services provided by the various agencies.

Carcap, as a Standard Metropolitan Statistical Area, is an industrial city and headquarters for a major automobile plant. It also has a major service component in its labor force; its total population approximates 380,000 people. (U.S. Bureau of the Census, 1972) Approximately 95% of the total population is White, 3% is Black and 2% is Spanish. Of this population, according to the 1970 census:

- the median age is 23.4 years;
- median school years completed by persons 25 years and older is 12.4;
- the median annual family income for the white population is $11,313;
- the median annual family income for the black population is $8,435;
- 6.2% of the total population were receiving public assistance;
- 5% of the total population were unemployed;
- approximately 6% of all families were below the poverty line;

- 20.5% of the black families were below the poverty line;
- 10% of the Spanish families were below the poverty line;
- of all persons below the poverty level, 33% were under eighteen years of age;
- of all persons below the poverty level, 17.1% were 65 years of age and over. (U.S. Bureau of the Census, 1972)

The relating of these community characteristics raises the question of whether and how they affect organizational interaction. The reader is directed to Sheldon's (1975) dissertation for information on this topic.

As for the general characteristics of the agencies in this study, I have already alluded to some of them. I am dealing with United Way agencies such as YMCA, YWCA, Red Cross, and the Salvation Army. The public social service organizations, on the other hand, reflect the results of government intervention in human welfare such as: Model Cities and their components; Mental Health agencies; programs for the unemployed; and local branches of the State's Department of Social Services. The total number of agencies included in this study is 28. They are about equally divided into public and private agencies. Also, approximately one-half provide a wide range of services, while the other half provide specific treatment for clients.

Insofar as many groups and organizations can lay claim to providing social services, a decision on criteria which would allow for comparing the present findings with the majority of other studies in the health and welfare field was necessary. Furthermore, the requirements of the sponsoring agencies were such that very small private

agencies had to be included. This raised the question of whether or not they met the minimal definitions of hierarchy and formalization characteristic of formal organizations. Finally, there were organizations which provided social services either voluntarily or as legislatively mandated supplements to their primary objectives of religion, education, law enforcement, health care, or political action. These important considerations, therefore, affected the operational definition of social service agencies as we attempted to include all formal organizations of sufficient size and purpose for the study.

In describing the overall project, Sheldon (1975) states that the research does not include such groups as privately sponsored local crisis centers, emergency aid projects, or community organization programs because they did not meet a minimum budget and size criteria. Secondly, she observes that the collected data do represent the universe of organizations meeting the operational specifications rather than a sample of such organizations.[1] All the small United Way agencies met the minimum budget part of the operational definition and had policy-setting boards. Non-United Way groups which did not meet staff size, policy boards, and budget criteria were excluded.

The original research plan had a three-fold intent: a) to test major ideas about organizations and their interrelationships in a community setting; b) to provide information to the local social service agencies on client perception of United Way agencies; and, c) to provide information on patterns of cooperation, conflict, and service integration among the agencies. The data reported here reflect the

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[1] These operational criteria are defined in the following section of this chapter.

theoretical concern for interorganizational relationships and their potential impact on internal organizational processes.

A lengthy pre-test helped determine the question content and the structure of the data collection process itself. Here I will only focus on the data gathering stages. For information concerning access to the organizations and such concerns as comparability of records among organizations, see Marcus (1974a) and Sheldon (1975).

Data gathering occurred in four stages. First, agency directors were interviewed using a lengthy structured questionnaire concerned with objective organizational information. Second, agency heads completed a self-administrered questionnaire, to be returned by mail, concerned primarily with perceptual level data. Third, a document analysis of all the organizations was conducted to gather specific information on source and size of budget, allocation of resources, staffing, and goals and policies. Finally, agency personnel, with the exception of maintenance and volunteer workers, completed a self-administered questionnaire covering three broad areas. The staff questionnaire sought information on: a) the community's social service needs; b) competition, communication, influence, and similar processes within the organizations; and, c) interorganizational exchanges and/or contacts.

Response from the agency directors as well as staff response was favorable. In only a few cases was cooperation withheld either entirely or partially. But these few cases do not affect the quality of the data gathered nor do they limit the interpretations that can be placed on the data at hand. Approximately 1,000 usable questionnaires were obtained from agency staff.

The variables examined in this study are taken from the two Agency

Head questionnaires and the staffs' self-administered questionnaires.[2] This combined information presents a valid description of the relationships between organizations and their internal social processes. The agency heads are key informants who provide reliable data that can be combined with other sources of information. While not entirely new, this is a unique manner of applying social survey research methods in the study of formal organizations.

Environmental Variables

The definition of environment, as described in the preceeding chapter, is organizational interaction. To measure this phenomenon, agency heads were asked a series of questions aimed at eliciting the names of five other organizations on items considered indicative of organizational interaction. These five organizations were ranked by the agency head in order of importance so as to form an overall pattern of which organizations were important for the one that was responding.

The questions intended to cover six major types of interorganizational relations as found in the literature: viz., competition, cooperation, communication, joint programs, sharing facilities and staff, and joint planning and fund seeking. The specific items used to operationalize these interaction categories are as follows:[3]

Competition -

a) providing similar services (SIMSERV)

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[2]The exact wording for all the questions is found in Appendices D and E.

[3]The acronym in parenthesis following the specific item was designed to label variables for use with the Statistical Package for the Social Sciences. Whenever possible, I will use the full term in the body of the essay. However, for labeling tables, I will use the acronym as it is more convenient.

b) competing for community resources (COMPETE)

c) receiving money from the same sources (SAMEMONY);

Cooperation -

a) helping other agencies to deliver their programs to their clients (RELY)

b) referring unserved clients to other agencies (REFER)

c) providing general cooperation and support for others' programs (SUPPORT);

Communication -

a) exchanging opinions, information and ideas (COMMUNCTE);

Joint Programs -

a) running programs for other agencies (PROGFOR)

b) running programs with other agencies (RUNPROJ);

Share Facilities and Staff -

a) sharing facilities for serving clients (SHARFACL)

b) sharing staff for providing services (SHARSTAF);

Joint Planning and Fund Seeking -

a) engaging in joint planning (JNTPLAN)

b) jointly seeking funds (SEEKFUND).

Structural Variables

The intervening or structural variables have previously been defined as internal dimensions or features of an organization that serve to define the type and range of goal-oriented activities. This morphological emphasis is seen in the following operational definitions of organizational structure.

Size (SIZSTAF) - This is measured by the number of full-time staff positions. Small (less than 25) and large (more than 25) are the two dicotomies used. The median size of all the organizations is 27. This is an important fact because much organizational data reported on in the literature is concerned with entities numbering in the hundred's. Therefore, size, as a variable in this study, will represent a different reference point from that of other studies.

Professional/Administrative Ratio (PROAMRTO) - This variable is the proportion of professional to administrative positions in the organizations. It reflects the relative importance of professionally trained individuals (in comparison to administrative and clerical) for providing the organizations' services. This variable is dicotomized into low: 0% to 45% professional; and high: 46% or more professional.

Age of Organization (AGENAGE) - Age is dicotomized into old: pre-1964; and new: post-1964. This categorization is based on the period of "national establishment of organizations with similar general functions and objectives." (Sheldon, 1975: 66) The early 1960's is used as the cutting point because it was a critical period for social welfare policy in the United States as a whole.

Conflict (CONFLICT) - The sum of the mean scores on two items concerning the agency heads' perceptions of differences of opinion among board members and among staff make up this variable. For the list of items see the last two questions in the agency head questionnaire, Appendix D.

Auspices (AUSPICES) - The social service agencies can be separated into two categories, viz., public agencies and private. General criteria for discriminating between the two are as follows:

- Private: all member organizations of United Way are included. In other cases, the agency must be a formally organized task-oriented group providing at least one social service, as defined by the United Way of America, as its primary objective. In addition, the agency must have a paid, full-time staff of at least five positions and an annual budget of at least $10,000; have its own autonomous policy-making board, composed of persons from more than one organizational source, with the power to hire and fire and allocate funds;

- Public: organizations which are primarily dependent upon federal, state, regional, or local tax funds and have as their major function the provision of social services as described in the United Way of America guide. (Sheldon, 1975: 287) Funding may also include contributions and grants from non-public sources. Local offices of federal and state agencies are included as are local organizations which meet the staff, budget, and board criteria listed above for private agencies.

The discriminatory character of the above criteria is not arbitrary. The goal of the researchers and the interests of the sponsoring organization were congruent, viz., to

obtain satisfactory and sufficient information on all pertinent social service agencies.

Services Rendered (WORKMODE) - According to the literature, this may be one of the more important intervening variables. It is concerned with the technology or "mode of work" involved in the goal-oriented activities of the organizations. Two broad categories are used, viz., treatment and distributive.

- Treatment: these agencies generally have a clinical model of work and seek to change people as a result of providing them with services. Highly trained professionals attempt to meet the individual demands of the clients. Examples of such agencies are: Community Mental Health, Council on Alcoholism, Family and Child Services.

- Distributive: these agencies provide an array of services and programs without a commitment to change the users. There is, however, the implication that the client would benefit from partaking in the agencies' programs. There may be a lower demand for highly trained professionals because of the more general kinds of services. Examples of these agencies are: American Red Cross, YWCA, Employment Security Commission, Boy Scouts.

Rules - This variable is one of the major components of bureaucracy or formal organization. It is measured by five items taken from the Staff Questionnaire. (See questions 8, 9, and 10 in Appendix E.) The five items are:

(JOBDES) - whether or not a written job description existed for the respondent's position;

(MANUAL) - whether or not a staff or policy manual existed which included written rules and regulations.

(USEMAN) - how useful the manual was, if it existed, for solving every day problems.

(JOBFRE) - how much freedom the respondent had to use his own judgment in day to day operations. This was dicotomized into high or low.

(EXTNREG) - The extent to which written regulations and procedures were followed in the agency.

Internal Organizational Process Variables

Items from the Staff Questionnaire were used to operationalize the internal process variables. For the purposes of this study, I use the composite responses (arithmetic mean) of the staff members in order to examine the overall effects of environment on internal processes.

Communication - This variable is measured in terms of consulting with and asking for job related information from other people about agency procedures and problems. This activity is divided into four dicotomous measures of horizontal and vertical flows within the organization and also includes information gathering by staying inside or going outside the organization itself.

(CONSUPRV) - consult with supervisor about job related problems.

(CONSUPRL) - consult with upper level staff about job related problems

(CONSOWNL) - consult with own level people about agency procedures.

(CONSSUBS) - consult with subordinate level people about agency procedures.

(SKINFOIN) - seek job related information from someone within the agency.

(SKINFOOT) - seek job related information from someone in another agency.

Power - This variable is defined as the degree of participation in decision-making within the organization. Among agency staff, the distribution of power may be high or low according to the frequency of their participation. Specific variables are:

(STAFFDEC) - participate in decisions about staff hiring and promotion.

(RESALLOC) - participate in decisions about resource allocation.

(CHNGPROG) - participate in decisions about changing services or programs.

Influence - We straightforwardly asked the extent to which a number of factors influence what occurs in an individual's job. Two measures of vertical influence are possible: a) from the top down to the individual's position, e.g., the Board, the Director, and upper level officials; and, b) from the bottom up to the individual, e.g., lower level staff and subordinates. Horizontal influence was obtained by asking what impact other persons at the respondent's own level in the organization have on the respondent's job. Influence is defined

as: affecting decisions or outcomes without directly participating in a final judgment or decision. The following operational variables were dicotomized into high and low.

(INFLBORD) - board's influence on one's job.

(INFLAGHD) - agency director's influence on one's job.

(INFLUPLV) - upper-level officials' influence

(INFLSUPR) - immediate superior's influence on one's job.

(INFLONLV) - the influence of persons at one's own level.

(INFLLOLV) - lower level staff's influence.

(INFLSUBS) - direct subordinates' influence on one's job.

Cooperation and Support - Three possible dicotomous measures are also available here: a) vertical (i.e., top-down) support from the Board and other upper level personnel; b) reverse vertical (i.e., bottom-up) support from lower level staff members; and, c) horizontal support from staff members at the respondents' level. The specific variables are:

(COOPBORD) - board cooperation and support for doing one's job.

(COOPLOLV) - lower level staff cooperation for doing one's job.

(COOPONLV) - cooperation from persons at one's own level.

(COOPUPLV) - upper level staff cooperation.

Competition/Conflict Among Staff - This variable was measured by listing a series of items and asking the respondent to indicate "how much of a problem" each one of the items was in doing their job. These items were also broken down into a high-low dicotomy for analysis. The

specific items included in this study are:

(STFCONFL) - conflict over agency goals among staff creating a problem for doing one's job.

(NOEFCADM) - lack of effective administration creating a problem for doing one's job.

(PROBPROC) - office practices and procedures creating a problem for doing one's job.

(PORNCOMM) - poor internal communication among staff members creating a problem for doing one's job.

This completes a lengthy review of the variables. The reason for such a presentation is to provide the reader with an appreciation of the variables themselves as distinct elements. As indicated in the previous chapter, my plan of analysis is to examine the multiple relations among these variables in light of Weick's (1976) and Glassman's (1973) conceptualizations of organizations as loosely coupled systems. The reason for leaving the variables stand alone, without attempting to factor or cluster the variables statistically, is to begin thinking in terms of multiple causation (Negandhi, 1975). However, I contend that the specific sets of variables, logically and methodologically as found in the literature, form cohesive concepts. Stanfield's (1976) exhortation for, and Freeman's (1975) example of, conceptual disaggregation is also cited here as further support for the type of analysis which follows. While it may be too soon to predicate about "multiple causation" in the social sciences, nevertheless a more specific idea of "multiple relations" may be a starting point.

As mentioned in the Introduction, the present research examines

the influence of an organization's environment over its internal

TABLE 1.
SUMMARY OF VARIABLES FOR ENVIRONMENT,
STRUCTURE, PROCESS MODEL OF ORGANIZATIONS

Interorganizational Relations (External)	Organizational Structure (Intervening)	Internal Social Processes (Internal)
competition	auspices	competition/ conflict
cooperation	staff size	
communication	professional/ administrative ratio	influence
joint programs	age	power
share facilities and staff	conflict	cooperation and support
joint planning and fund seeking	services rendered	communication
	rules	

processes. Although I assume a measurable flow of influence from the activities of organizations with one another to activities that take place within the organization, any assertion of causality among variables in highly dependent systems, such as a formal organization and its network, is more a strategy of analysis than an assertion about reality. (Perrow, 1967; Aiken and Hage, 1968)

Aware of this caveat, the present study examines environmental variables as logically prior to internal social processes, even though

it presents correlations rather than causal relationships. Thus, through conceptual and operational disaggregation and the consideration of "multiple relations", I should be able to demonstrate the responsiveness of individual elements to each other and their contribution to the whole system as they interact with other elements in the system's environment.

DATA ANALYSIS - I

The following two chapters present the results of Pearsonian zero-order and first-order partial correlation coefficients among the variables for the study, viz., environment, structure, and internal processes. Each one of these is examined in some detail by focusing on the elements (variables) that comprise them. The value of "disaggregation" and of "multiple relations" soon becomes apparent in considering these variables. This chapter concludes by examining the zero-order correlation matrix for environment and internal process variables. The effect of structure as an intervening variable (which tests the model being proposed) is considered in the following chapter.

The Environment

The definition of environment, as described in the preceeding sections, is organizational interaction. To measure this phenomenon, agency directors were asked a series of questions considered indicative of such interaction. Table 2 presents this information. The zero-order correlations demonstrate an interesting pattern of action among the organizations in question.

First, there is a general pattern of strong positive relationships among the organizations themselves. This appears to indicate positive reinforcement of interorganizational practices. It may be interpreted as producing a climate of accordance among the various

organizations. For example, the more that organizations refer clients to other agencies (REFER)[1],

- the more support and cooperation (SUPPORT) the agencies provide each other (.78);

- the more exchange of information and opinion (COMUNCTE) takes place (.60);

- the more they help run programs for other agencies (PROGFOR) (.63);

- the more they jointly solicit operating funds (SEEKFUND) (.70); and, interestingly enough,

- the more they rely upon other agencies (RELY) to deliver their own programs to clients (.72).

Finally, support and cooperation among the agencies (SUPPORT) appears to be very similar to the practice of relying upon other agencies (RELY) to deliver their own programs to clients. The correlation coefficient here is .90.

Likewise, sharing facilities (SHARFACL) and sharing staff (SHARSTAF) are both positively correlated with a number of variables: for example,

- RELY and SHARFACL is .64;
- RELY and SHARSTAF is .73;

- SUPPORT and SHARFACL is .58;
- SUPPORT and SHARSTAF is .72;

- COMUNCTE and SHARFACL is .74;
- COMUNCTE and SHARSTAF is .69.

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[1]See the Methods Chapter for the definition of specific variables and the use of acronyms for variable names. Also, a list of variables and their definitions is provided in Appendix A.

TABLE 2
PEARSON ZERO-ORDER CORRELATION MATRIX FOR ENVIRONMENT VARIABLES

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROG	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
SIMSERV	1.000												
COMPETE	.43@	1.000											
SAMEMONY	.50*	-.34@	1.000										
RELY	.42@	.23	.49*	1.000									
REFER	.32@	.10	.22	.72*	1.000								
SUPPORT	.37@	-.01	.28@	.90*	.78*	1.000							
COMUNCTE	.19	.23	.67*	.60*	.66*	.60*	1.000						
PROGFOR	.49@	-.04	.51@	.62*	.63*	.59*	.24	1.000					
RUNPROJ	.56*	.57*	.71*	.48@	.48@	.36@	.62*	.46@	1.000				
JNTPLAN	.16	.67*	.20	.30	.13	.12	.32	-.19	.77*	1.000			
SEEKFUND	.32	.18	.79@	.71*	.70*	.67*	.71*	.70*	.66*	.10	1.000		
SHARFACL	.30@	.30@	.43@	.64*	.67*	.58*	.74*	.43@	.64*	.38@	.74*	1.000	
SHARSTAF	.43@	.38@	.58*	.73*	.61*	.72*	.69*	.50@	.56*	.47@	.78*	.73*	1.000

* $p \leq .001$ @ $p \leq .01$

These strong positive relationships indicate that much of the variance regarding the specific organizational relations is covered by the bivariate relationships themselves. This may be taken as an indication of the comprehensiveness of each element in the operational definitions. Also, these correlations indicate that the specific elements which comprise the general categories of: competition, cooperation, joint programs, and sharing (as presented in the Methods Chapter) do combine in a logical manner. However, the low correlation (.10) between joint planning (JNTPLAN) and jointly seeking funds (SEEKFUND) indicates that these two variables need not necessarily be combined. Finally, the category communication (COMUNCTE) has only one element.

The three negative correlations in Table 2 are practically negligible: i.e.,

- SUPPORT and competing for community resources (COMPETE) is -.01;

- COMPETE and running programs for other agencies (PROGFOR) is -.04; and,

- PROGFOR and joint planning (JNTPLAN) is -.19.

But, these are, in a sense, expected negative relationships. We would not expect agencies to support each other and compete at the same time; and, the more joint planning among organizations, the less they run programs for each other because they are running projects and programs with each other.

Secondly, the variable COMPETE has a relatively low correlation with RELY (.23) and REFER (.10). We have just seen its negative relationship with the variable SUPPORT. While these relationships are

not very strong, they are in the expected direction because these last three variables, i.e., RELY, REFER and SUPPORT, are indicative of types of cooperation. Now, however, in examining Table 2, we note that the same variable COMPETE is strongly correlated with JNTPLAN (.67) and RUNPROJ (.57). This moderately strong positive association is surprising. Apparently, social service agencies are competing for the same community resources, e.g., personnel, money, clients, office space, etc., while also working together, perhaps, through the United Way or some other coordinating agency.[2]

Another angle from which to view the competition for community resources among agencies is to note that SIMSERV (agencies that provide similar services to clients) is positively related with COMPETE (.43) and with receiving money from the same sources (SAMEMONY) (.50). This indicates that the more similar the services which organizations provide, the more the competition for community resources and the greater the likelihood that the organizations receive money from the same sources. However, competing for community resources and receiving money from the same sources do not correlate very highly together (.34), even though it is in the expected direction. These two variables may indeed be measuring different dimensions of organizational resources as well as the manner in which these resources are appropriated.

Finally, we note that SIMSERV, a competition element, is positively associated with SHARSTAF (.43), PROGFOR (.49), and RUNPROJ

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[2]The State of Michigan has Regional Inter-Agency Coordinating Committees operating since 1971 to coordinate the activities of all public and private agencies serving the developmentally disabled. The real effectiveness of these regional committees has not yet been assessed, nor has the degree of competition and cooperation among these agencies been measured.

(.56), all three of which are indicators of cooperative activity. In similar manner, receiving money from the same sources, which is used as an indicator of competition, correlates very highly with:

- relying upon other agencies to deliver own programs to clients (RELY) (.49);
- exchanging information and opinions (COMUNCTE) (.67);
- running programs for other agencies (PROGFOR) (.51);
- running programs with other agencies (RUNPROJ) (.71); and,
- jointly looking for money (SEEKFUND) (.79).

The anomaly here is that receiving money from the same source (SAMEMONY) is not always indicative of doing joint planning (JNTPLAN), as there is a low positive correlation of .20. So that, while agencies may be competing for the same resources, only some kinds of cooperative activities may be involved in receiving money from the same sources. As such, these relationships suggest that competition as found among social service agencies has a different connotation than what is meant by referring to competition among economic, industrial organizations. It may be that Simmel's concept of "antagonistic cooperation" as found among dyads is applicable to competition among social service agencies. This is not a misapplication of the concept, especially as I can, operationally, dicotomize the agencies into Public/Private, Distributive/Treatment, etc. Theoretically, this operationalization would allow the use of Simmel's concept even though he formulated it on a different level of analysis.

In the dyad, says Simmel:

> Each of the two feels himself confronted only by the other . . . . the social structure rests immediately upon both, and the secession of either would destroy the whole. . . . the thought of its existence is accompanied by the thought of its termination . . . The dependence of the whole weighs equally on each. (Wolff, 1950: 123-124, 134-135)

This quote from Simmel allows for considering the interrelationships of competition and cooperation among the agencies as one of "antagonistic cooperation" very similar to the relationships within the dyad. Moreover, these findings on conflict-cooperation also appear to support some of Simmel's ideas concerning the integral role that conflict plays in social relationships at all levels. (See Coser, 1956, for a complete exposition on Simmel's references to conflict.)

Secondly, these data also provide empirical support for Litwak and Hylton's assumption that in interorganizational analysis "conflict between organizations is taken as a given". (1962: 397) They pointed out that if coordinating agencies were established to govern interorganizational relations, then some "procedures for preserving autonomy and conflict" would have to be established. It appears from the present data that their concern was well founded.

Finally, and perhaps, most importantly, for the purposes of this paper, Hawley's treatment of competition is pertinent here. (1950: 37-40) As previously mentioned, Hawley differentiates between symbiotic and commensalistic types of interdepdendence. Symbiotic relationships occur among unlike organisms and are mutually beneficial. The organisms supplement the efforts of one another "by making dissimilar demands on the environment members of different species". Commensalistic dependence, on the other hand, arises among members of the same species

as they make environmental demands upon each other. The behavior of each individual is, therefore, affected by similar demands upon the common supply of "sustenance materials". The most elementary expression of commensalism (literally, eating at the same table) is competition.[3] However, says Hawley, competition is often over-emphasized with the result that the phenomenon of mutual support among like organisms is often neglected. "Organisms with similar requirements frequently combine their efforts to maintain favorable life conditions; an aggregate acting in concert can accomplish what a lone individual cannot." (1950: 40) Extrapolating this principle to social service agencies and considering them as "same species member" is a valid explanation of the correlations among the environmental variables for this study. Within the human community which itself is a symbiotic-commensalistic phenomenon, says Hawley, the commensalistic relations which are present "give rise to categoric group(s), ... association(s) of functionally homogeneous individuals". These homogeneous groups or individuals are at the same time active and/or potential competitors. (1950: 210-211) Thus, individuals or organizations with the "most in common are at the same time most apt to enter into competitive relations". In the context of the present study, the survival of individual agencies is partially dependent upon the survival of all the agencies through an interchange of mutual support, while at the same time they compete for common resources. Thus, Proposition One is supported by the data.

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[3]Hawley defines competition as: "interaction in which each individual affects the behavior of every other by its effect upon the common supply of sustenance materials". (1950: 39)

The Structure

In the methods section, I described a set of variables as "intervening". These are generally referred to in the literature as structural variables. These elements, or variables, are internal conditions that define the type and range of goal-directed behavior of the organizations' members. Table 3 examines the interrelationships among these variables.

A large number of the correlations are negligible, indicating that the variables are generally distinct from each other. However, there are a few moderately strong relationships operating. For example, the presence of a staff and/or policy manual (MANUAL) and its degree of usefulness (USEMAN) are both positively related, (.33) and (.53) respectively, with the age of the agency (AGENAGE). Furthermore, agency age is also positively related (.65) with the extent to which written rules and regulations are followed (EXTNREG). It appears, then, that the younger the agency (i.e., post-1964) the more often that written rules and regulations exist and are followed by staff members. This finding suggests that younger organizations are "more bureaucratic" than are older (pre-1964) agencies in at least one bureaucratic characteristic, viz., the existence of and compliance with rules and regulations.[4] Finally, we see that the existence of a manual (MANUAL) and the usefulness of a manual (USEMAN) are both significantly correlated, (.47) and (.78) respectively, with the extent to which written regulations and procedures (EXTNREG) are followed.

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[4]Recent government legislation which established some of these newer agencies may also be influencing these correlations and demonstrates the influence of situational environmental variables on interorganizational relationships.

TABLE 3
PEARSON ZERO-ORDER CORRELATION MATRIX FOR STRUCTURE VARIABLES

	JOBDES	MANUAL	USEMAN	JOBFRE	EXTNREG	PROAMRTO	SIZSTAFF	AUSPICES	AGENAGE	WORKMODE	CONFLICT
JOBDES	1.000										
MANUAL	.43@	1.000									
USEMAN	-.12	.54*	1.000								
JOBFRE	-.36@	.09	.39@	1.000							
EXTNREG	-.002	.47*	.78*	-.04	1.000						
PROAMRTO	.46*	.30*	-.11	-.34@	.15	1.000					
SIZSTAFF	.24	.24	.10	-.16	.16	.02	1.000				
AUSPICES	.41@	.18	-.08	-.16	-.07	.03	.45*	1.000			
AGENAGE	-.11	.33@	.53*	.23	.65*	.08	.20	-.15	1.000		
WORKMODE	.28	.02	-.26	-.21	-.21	.54*	-.15	.22	-.28	1.000	
CONFLICT	.55*	.41@	-.01	-.24	.09	.23	.39@	.51*	.11	.29@	1.000

*$p \leq .001$ @ $p \leq .01$

This indicates the importance of pertinent policy- and/or staff-oriented manuals in these organizations.

In Table 3 we also note a moderately strong positive relationship (.54) between the professional-administrative ratio (PROAMRTO) and the services rendered by the agencies (WORKMODE). This finding is one I would expect. Treatment organizations, because of their more specific relations with clients, would tend to have a higher ratio of professionals to administrators.

Unexpected positive relationships are those concerning CONFLICT[5] and the existence of a job description (JOBDES) (.55) and CONFLICT and the existence of a staff and/or policy manual (MANUAL) (.41). I would expect that the existence of a job description and the presence of a staff manual or policy manual would tend to lower the presence of conflict in the organizations in that agency personnel would have a more thorough knowledge of their rights and obligations. Perhaps this finding reflects the fact that conflict exists where written expectations and procedures are perceived as not being met. Supporting this explanation, we see in Table 3 that the existence of a written job description reduces the freedom to use one's own judgment on the job (JOBFRE) (-.36). The existence of a job description may be highly correlated with conflict because it reduces the professionals' "sense of autonomy". This would appear to be so, since there is a weak negative correlation (-.24) between JOBFRE and CONFLICT. This correlation

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[5]The measure of conflict, as a structural variable, within the organization was established by summing the mean scores of the agency head's perceptions of the existence of conflict among board members and among staff over specified organizational activities.

is not statistically significant but it does indicate that the greater the staff's freedom to use their own judgment in day to day operations, the less likely conflict occurs in the agencies. These data appear to support Scott's (1966), Hall's (1975), and Litwak's (1961) observations concerning professionals in bureaucratic organizations.

Finally, SIZSTAFF is positively related to AUSPICES (.45) as well as with CONFLICT (.39). The implication here is that the larger the organization, the more likely it is a Public Agency and the more likely conflict would be found within the organization. Moreover, the correlation between CONFLICT and AUSPICES is .51 and the correlation between CONFLICT and WORKMODE is significant at .29. In effect, these data indicate that conflict as a structural variable, keeping in mind the manner in which it was operationally defined, is more likely to be found in large, public, distributive agencies.

This concludes the presentation of the structural variables. While not all the correlations have been examined, I have tried to indicate and explain the ones that are most important and interesting for organizational literature in general and for the purposes of this study in particular. I now turn to an examination of the internal processes.

The Processes

The interrelationships among the internal organizational processes[6] can be interpreted as being very distinct. By this I mean that

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[6]See the Methods Chapter for operational definitions.

not all the elements have discreet, direct effects upon other elements of the organizational processes.[7] Moreover, in some cases, the correlations among individual elements which constitute designated categories of organizational processes are not very consistent. This is especially pertinent for the elements that constitute the category of "communication". The low intercorrelations among these items, as found in Table 4, might be due to the phrasing of the items in the questionnaire. There were two items that asked about "problems"; two that addressed "procedures and problems"; and two that asked about "information and help" regarding the respondent's job. However, for my purposes, these items are still being grouped together as measures of "communication".

An examination of Table 4 reveals a scattering of significant and non-significant findings. In these zero-order correlations, there is a demonstration of how "conceptually disaggregated" elements have an impact of their own on each other, while constituting categories of behavior in "multiple relationships".

To reduce the confusion in looking at these data I focus on three specific themes. The first reflects Barnard's and Thompson's concern with cooperation and communication in formal organizations. The second theme mirrors Barnard's and Blau's analyses of the problem of cooperation and influence. The last is concerned with the exercise of power and the process of internal conflict. The themes do not exhaust all the interesting multiple relationships in the data, but at

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[7] Within the organizations themselves we can identify "tightly coupled" and "loosely coupled" systems. But this is not of major importance at present. It constitutes subject matter for another study.

TABLE 4
PEARSON ZERO-ORDER CORRELATIONS FOR PROCESS VARIABLES

	STAFDEC	RESALLOC	CHNGPROG	CONSUPRV	CONSUPRL	CONSOWNL	CONSSUBS	SKINFOIN	SKINFOOT	INFLBORD	INFLAGHD	INFLLOLV
STAFFDEC	1.000											
RESALLOC	.68*	1.000										
CHNGPROG	.81*	.84*	1.000									
CONSUPRV	.36@	.32@	.36@	1.000								
CONSUPRL	.46*	.14	.15	.44@	1.000							
CONSOWNL	.46*	.50*	.62*	.28@	-.05	1.000						
CONSSUBS	.35@	.50*	.42@	-.006	-.19	.61*	1.000					
SKINFOIN	.36@	.12	.17	.46*	.44@	.20	.04	1.000				
SKINFOOT	.16	.02	.08	.20	.17	.24	.08	.70*	1.000			
INFLBORD	.50*	.29@	.40@	.58*	.21	.20	-.12	.60*	.34@	1.000		
INFLAGHD	.29@	.00	.04	.31@	.56*	-.26@	-.42@	.42@	.04	.42	1.000	
INFLLOLV	.45*	.26@	.34@	.36@	.10	.22	.23	.63*	.46*	.62*	.25@	1.000
INFLONLV	.53*	.30@	.41@	.53*	.39@	.30@	.006	.62*	.43@	.73*	.39@	.79*
INFLUPLV	.39@	.20	.26@	.42@	.31@	.18	-.02	.55*	.19	.62*	.74*	.56*
INFLSUBS	.47*	.25	.26@	.21	.40@	-.03	.18	.52*	.09	.33@	.61*	.55*
INFLSUPR	.40@	.21	.25	.43@	.34@	.14	-.03	.56*	.17	.63*	.72*	.60*
COOPBORD	.31@	.60*	.49*	.27@	.15	.27@	.33@	.005	-.28@	.19	.07	-.02
COOPLOLV	.30@	.46*	.44@	.23	-.15	.59*	.63*	.04	.05	.22	-.54*	.35@
COOPONLV	.34@	.07	.16	.48*	.37@	.15	-.14	.66*	.50*	.66*	.41@	.77*
COOPUPLV	.28@	.42@	.38@	.16	.05	.31@	.46*	.002	-.26@	.07	.19	.30@
STFCONFL	.12	-.15	-.01	.18	-.05	.10	-.23	.22	.45*	.33@	.01	.24
NOEFCADM	.08	-.21	-.02	.16	-.26@	.14	-.09	.26@	.31@	.48*	-.04	.42@
PROBPROC	.17	.13	.05	.33@	-.17	.35@	.01	.30@	.40@	.46*	-.006	.33@
PORNCOMM	.13	.15	-.004	.36@	.08	.03	-.34@	.13	.21	.43@	.14	.10

* $p \leq .001$ @ $p \leq .01$

TABLE 4 (cont'd.)

	INFLONLV	INFLUPLV	INFLSUBS	INFLSUPR	COOPBORD	COOPLOLV	COOPONLV	COOPUPLV	STFCONFL	NOEFCADM	PROBPROC	PORNCOMM
STAFFDEC												
RESALLOC												
CHNGPROG												
CONSUPRV												
CONSUPRL												
CONSOWNL												
CONSSUBS												
SKINFOIN												
SKINFOOT												
INFLBORD												
INFLAGHD												
INFLLOLV												
INFLONLV	1.000											
INFLUPLV	.69*	1.000										
INFLSUBS	.50*	.68*	1.000									
INFLSUPR	.72*	.90*	.76*	1.000								
COOPBORD	.23	.29@	.34@	.34@	1.000							
COOPLOLV	.29@	-.17	-.09	-.04	.32@	1.000						
COOPONLV	.78*	.55*	.32@	.59*	-.21	.19	1.000					
COOPUPLV	.28@	.40@	.56*	.52*	.62*	.34@	.03	1.000				
STFCONFL	.22	.10	-.26@	.04	-.49*	-.07	.47*	-.57*	1.000			
NOEFCADM	.26@	.18	-.06	.20	-.44@	.13	.53*	-.36@	.78*	1.000		
PROBPROC	.32@	.31	-.14	.23	-.32@	.06	.48*	-.32@	.77*	.83*	1.000	
PORNCOMM	.17	.13	-.18	.13	-.25@	-.07	.35@	-.47*	.81*	.70*	.65*	1.000

* $p \leq .001$ @ $p \leq .01$

least they provide a focus for manageable discussion.

Cooperation and Communication

In general, the seeking of information and help from either inside (SKINFOIN) or outside the organization (SKINFOOT) is highly correlated, (.66) and (.50) respectively, with receiving cooperation and support for doing one's job from "own level" personnel (COOPONLV). However, neither of these two communication "elements" is related with cooperation from any other level in the organization. In fact, there is a weak inverse relationship between SKINFOOT and cooperation from the agency board (COOPBORD) (-.28) and between SKINFOOT and cooperation from upper level staff (COOPUPLV) (-.26).

Secondly, the data indicate that the greater the amount of consulting with upper level staff (CONSUPRL) and with supervisors (CONSUPRV) about problems, the greater the cooperation from own level staff (COOPONLV) for doing one's job, viz.,

- CONSUPRL and COOPONLV, .37; and,
- CONSUPRV and COOPONLV, .48.

Lastly, consulting with own level personnel (CONSOWNL) is positively correlated with:

- cooperation from lower level staff for doing one's job (COOPLOLV) (.59);
- cooperation from upper level staff (COOPUPLV) (.31); and,
- cooperation from the agency board (COOPBORD) (.27); while consulting with subordinates (CONSSUBS) about procedures and problems is positively correlated with:
- cooperation of lower level staff (COOPLOLV) (.63);

- cooperation of upper level staff (COOPUPLV) (.46);

- cooperation of the agency board (COOPBORD) (.33).

It appears from this discussion that the cooperative relationships among various levels in the organizations are related to the content of the communication as well as the organizational level to which it is addressed. Board members and upper level staff appear to frown upon personnel seeking information outside the organization, but own level staff appear to encourage it. Secondly, consulting with upper level staff increases cooperation at one's own level but appears to do nothing for cooperation from other levels. On the other hand, consulting with own level personnel and with direct subordinates increases cooperation from all levels in the agency except one's own. These data underscore the importance of Barnard's and Thompson's observations concerning the role of communication and cooperation in formal organizations. (Barnard, 1938: 165-167; Thompson, 1967: 57-59)

The above discussion can be related to the following analysis on cooperation and influence, by focusing on SKINFOIN (seeking information and help within the organization) as an important "linking" element. The reason is that the more frequently information and help in doing one's job is sought inside the organization (SKINFOIN), the more that influence is exerted by all levels of the organization on doing one's job. There are moderately strong positive relationships between SKINFOIN and:

- influence of the board members (INFLBORD) (.60);

- influence of agency head (INFLAGHD) (.42);

- influence of lower level staff (INFLLOLV) (.63);

- influence from own level staff (INFLONLV) (.62);

- influence from upper level staff (INFLUPLV) (.55);
- influence from subordinates (INFLSUBS) (.52);
- influence from supervisors (INFLSUPR) (.56).

These data indicate that looking for help inside the organization involves all the organizational levels to greater or lesser degrees. This may be related to formal communication channels and chains of command in the sense that influence is activated when information is sought. The element, SKINFOIN, links the categories of communication, influence, and cooperation in that, as one of the elements that measures communication, it is: a) strongly associated with influence from all levels on doing one's job, which are, as we shall see, b) strongly associated with cooperation from own level personnel for doing one's job. These correlations are indicative of the dynamic and, perhaps, elliptic flow among communication, influence, and cooperation as they occur in a formal organization.[8]

Cooperation and Influence

We now examine the relationships among the "influence" and the "cooperation" elements. All the elements that comprise the category "influence" in Table 4 are positively correlated with cooperation of own level staff for doing one's job (COOPONLV). These correlations, all of which are significant, are as follows:

- INFLBORD and COOPONLV, .66;
- INFLAGHD and COOPONLV, .41;

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[8] If the above discussion did not elucidate matters, merely observe that the correlation coefficient between SKINFOIN and COOPONLV is .66 and is significant at .001.

- INFLLOLV and COOPONLV, .77;
- INFLONLV and COOPONLV, .78;
- INFLUPLV and COOPONLV, .55;
- INFLSUBS and COOPONLV, .32;
- INFLSUPR and COOPONLV, .59.

Apparently, all levels in the organizations have some effect on cooperation among staff members at their own job levels.

These data may be interpreted as indicative of an in-group out-group phenomenon within the organizations themselves. The cooperation and support from one's own level (COOPONLV) in work performance demonstrates that a "we-feeling" may be produced in one level by members of another level in the organization. In this regard, it is interesting to observe that influence of own level personnel in doing one's job (INFLONLV) and cooperation from own level staff (COOPONLV) is .78, which is the highest correlation among all the influence elements with COOPONLV.

These data provide some empirical evidence that individuals receive help and support from their own kind within organizations. This may be especially so when they are faced with influence from outside their group. This finding appears to be a variation of Blau's conclusions on colleague consultation in the two government agencies he studied. Blau noted that agency officials treated stenographers, lawyers, and clients in categorical, stereotypical ways, but that the members of a work group knew each other as singular human beings. (Blau, 1955: 175)

On the other hand, we note that the agency head's influence on

one's job (INFLAGHD) is negatively correlated (.54) with cooperation of lower level staff (COOPLOLV) for doing one's job. In other words, the greater the influence of the agency head on one's job, the less there is lower level staff cooperation for doing one's job. But, this negative relationship is countered by the fact that influence of lower level staff (INFLLOLV) and influence of own level staff (INFLONLV) is positively correlated with cooperation of lower level staff (COOPLOLV) for doing one's job, viz.,

- INFLLOLV and COOPLOLV is .35;
- INFLONLV and COOPLOLV is .29.

These are low correlations, but both are significant at the .01 level. I interpret the net effect of these three relationships as an indication of balancing the internal social processes which take place in an organization; which Barnard makes reference to concerning the survival of an organization (1938: 6).

Finally, these data demonstrate that influence of upper level staff, of direct subordinates, and of supervisors on an individual's job is positively and significantly related to cooperation of the Board for doing one's job, viz.,

- INFLUPLV and COOPBORD, .29;
- INFLSUBS and COOPBORD, .34;
- INFLSUPR and COOPBORD, .34.

These correlations indicate the importance of three distinct groups for successful performance of an individual's tasks. In effect, this set of variables demonstrates the "balancing of relationships" involving the exercises of influence and cooperation in an organization. These findings also contribute to an interpretation of how dynamic

elements contribute to the "steady state" of equilibrium for goal-obtention in an organization.

Power and Conflict

Power is defined here as the degree of participation in decision-making. Elements that are indicative of the exercise of power among staff members are:

- participating in decisions about staff hiring and promoting (STAFFDEC);

- participating in decisions about allocation of resources (RESALLOC);

- participating in decisions about changing or adding services or programs (CHNGPROG).

The three variables are strongly correlated among themselves. For example, participating in decision-making about resource allocation is very nearly the same as participating in decisions about changing or adding services (.84). And, making decisions about staff hiring and promoting is highly correlated with decision-making concerning changes in services or programs (.81).

The relationships of these variables with other internal social processes demonstrate an interesting pattern. Each one of the elements of power is highly correlated with a different set of organizational processes. For example, taking part in decisions about staff hiring and promotion (STAFFDEC) is more highly correlated with all levels of influence in the organizations (See Table 4) than are participating in decisions about allocation of resources or the changing of services or programs. On the other hand, resource allocation decisions

(RESALLOC) are more highly correlated with cooperation at all levels, except one's own (COOPONLV), than are STAFFDEC and CHNGPROG. Finally, decisions about changing services and programs (CHNGPROG) presents a rather mixed picture and demonstrates the application of "conceptual disaggregation". We note in Table 4 that CHNGPROG is highly correlated with the element consulting at one's own level (CONSOWNL) (.62), moreso than RESALLOC and STAFFDEC. But, it is also the only element in the category "communication" that carries such a high correlation with decision-making on changing programs and services.

These patterns indicate the relevance of three distinct internal social processes, viz., communication, influence, and cooperation, as they pertain to the given topics or items about which decisions are made. All three have different degrees of impact on the various topics about which power, as decision-making, is exercised. The relative importance of the "elements" of the three processes and their individual impacts on decision-making are also indicated by the data.

Perhaps the best manner of examining the importance of the "conflict" elements is to relate them to the elements that comprise the category "cooperation". The practical reason for this is that more statistically significant correlations exist between conflict and cooperation than any other internal process category.

We first note in Table 4 that conflict over agency goals among staff members (STFCONFL), lack of effective administration (NOEFCADM), office practices and procedures (PROBPROC), and poor communication with other staff members (PORNCOMM) are all highly interrelated. And in fact, two sets of elements are very closely intertwined, viz.,

- PORNCOMM and STFCONFL, .81; and,

- PROBPROC and NOEFCADM, .83.

This indicates that staff conflict may be due almost entirely to poor internal communication. Somehow, either the sender, the message, the medium, or the receiver contributes to "poor" communication and is reflected in this correlation with staff conflict. Secondly, lack of administrative effectiveness (NOEFCADM) is strongly associated with problematic office practices and procedures (PROBPROC). Therefore, conflict, as an internal process category, reflects interferences in doing one's job, as I have operationally defined the category.

In relating the conflict elements to those of cooperation, it is important to note that the greater the cooperation of the Board (COOPBORD), the less:

- conflict over agency goals among the staff (STFCONFL) (-.49);

- ineffective is the administration (NOEFCADM) (-.44);

- that office practices are problematic (-.32); and,

- that poor communication exists with other staff members (PORNCOMM) (-.25).

Similarly, we see that strong negative correlations exist between cooperation of upper level staff and the following:

- STFCONFL,-.57;

- NOEFCADM,-.36;

- PROBPROC,-.32;

- PORNCOMM,-.47.

However, the greater the cooperation from "own level" staff members (COOPONLV),

- the greater the conflict over agency goals (STFCONFL) (.47);

- the more the lack of effective administration (NOEFCADM) (.53);

- the more that office practices and procedures become problematic (PROBPROC) (.48); and,

- the more that poor communication with other staff members becomes a problem (PORNCOMM) (.35).

By comparison, cooperation of lower level personnel (COOPLOLV) has negligible relationships with the "conflict" elements considered here.

These data appear to indicate that staff members themselves, at their own level, contribute to "on-the-job" problems, perhaps creating confusion in the form of various interpretations of agency rules, policies, and clients' needs. Support for this interpretation can be seen in the positive correlation (.35) between CONSOWNL and PROBPROC which is statistically significant at the .01 level. In other words, the greater the amount of consulting at one's own level, the greater that office practices and procedures are problematic. Perhaps these data could be related to Merton's observations on dysfunctions of bureaucracies. He mentions that an "espirit de corps" could develop which is transformed into defending entrenched interests. The data here could be indicative of such "entrenching". At the same time, however, the data indicate that these "conflict conditions", internal to the organization, appear to be reduced through the cooperation of the agency Board members and through upper level staff members, while the cooperation of lower level staff members appears to have no effect on the internal process of conflict.

This concludes the discussion of the intercorrelations among

the variables designated as constituting environment, structure, and process. The wide range of associations within each set of variables is very evident and has hardly been tapped. But, we now have an appreciation of how each element in a category may be related to members of its own category and can potentially affect various elements of other categories.

The above discussion on the process variables of conflict and particular aspects of cooperation, communication, and influence within the agencies is an example of the value of "conceptual disaggregation". Although statistical procedures, such as factor analysis or clustering, could reduce the number of variables for easier manipulation of the data, it is obvious that much detail would be lost at the same time. I now turn to examining the coorelations among the elements that comprise the environment and the internal processes.

Environment and Processes

The zero-order correlation coefficients between the environment and the internal organizational processes are presented in Table 5. I recognize the fact that the Pearson correlation does not indicate any causality among the variables in question. However, for the purposes of this study and on the basis of my theoretical orientation, I am postulating a flow of influence from the environment, i.e., interorganizational relations, to internal organizational processes. On this basis, we can consider the environment as the independent variable and the internal social processes as the dependent variables.

The definition of internal social processes refers to the informal social relationships within the organizations. While staff

TABLE 5
ZERO-ORDER CORRELATION MATRIX FOR ENVIRONMENT AND PROCESS VARIABLES

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROJ	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
STAFFDEC	-.05	-.07	-.05	-.50*	-.38@	-.44@	-.35@	-.41@	-.12	-.20	-.38@	-.40@	-.41@
RESALLOC	-.05	-.03	-.05	-.37@	-.39@	-.50*	-.47@	-.10	.01	-.04	-.14	-.15	-.46@
CHNGPROG	-.09	-.19	-.19	-.61*	-.48@	-.68*	-.47@	-.33@	-.22	-.31	-.40@	-.31@	-.59*
CONSUPRV	.07	.18	.04	-.32@	-.33@	-.23	-.42@	-.13	-.18	-.08	-.24	-.15	-.20
CONSUPRL	-.03	.04	-.10	-.35@	-.17	-.05	-.14	-.50@	-.08	.004	-.39@	-.17	-.19
CONSOWNL	.08	-.18	-.27	-.36@	-.31@	-.45@	-.45@	-.29	-.23	-.46@	-.40@	-.43@	-.48@
CONSSUBS	-.15	-.21	-.12	-.31@	-.36@	-.48@	-.35@	-.42@	-.08	-.26	-.32	-.45@	-.53*
SKINFOIN	-.05	-.05	.33@	-.08	-.06	.07	.06	-.24	.17	-.03	.03	-.22	-.30@
SKINFOOT	-.04	-.04	.24	.06	.02	.24	.26	-.05	.25	-.11	.08	.03	-.17
INFLBORD	.15	.26	.38@	-.30@	-.16	-.15	-.07	-.03	.07	.08	.03	-.27	-.01
INFLAGHD	-.08	-.09	.16	-.35@	-.01	.06	-.20	.05	-.09	.17	.09	-.15	.10
INFLLOLV	-.11	-.15	.28	-.13	-.15	-.03	-.14	-.11	-.16	-.19	.004	-.34@	-.26
INFLONLV	.003	-.003	.17	-.39@	-.37@	-.09	-.23	-.29	-.10	-.01	-.34	-.46@	-.25
INFLUPLV	.02	.02	.31@	-.32@	-.23	-.13	-.18	-.01	.01	-.02	-.08	-.36@	-.11
INFLSUBS	-.32@	-.24	.22	-.42@	-.35@	-.30@	-.18	-.39@	-.05	-.01	-.14	-.36@	-.28@
INFLSUPR	-.004	.000	.25	-.41@	-.37@	-.19	-.35@	-.20	-.06	.09	-.23	-.40@	-.21
COOPBORD	-.12	.10	.09	-.45@	-.38@	-.61*	-.19	-.27	.12	.18	-.19	-.24	-.26
COOPLOLV	.13	-.08	-.07	-.30@	-.39@	-.43@	-.45@	-.36@	-.25	-.29	-.27	-.43@	-.40@
COOPONLV	.26@	.03	.27	-.01	-.06	.25	-.13	-.21	-.19	-.06	-.10	-.23	.002
COOPUPLV	-.24	-.25	-.03	-.52*	-.48@	-.50*	-.49@	-.20	-.18	-.16	-.17	-.38@	-.31@
STFCONFL	.33@	.26	.30@	.36@	.17	.24	.37@	.07	.07	.09	.13	.21	.26
NOEFCADM	.25	.17	.39@	.24	-.01	.16	.22	-.02	-.15	-.06	.03	.01	.23
PROBPROC	.35@	.26	.28	.19	-.07	.08	.04	-.04	-.004	-.07	-.08	-.20	.15
PORNCONM	.19	.26	.16	.12	.05	.01	.24	-.19	-.13	.12	-.02	.17	.25

* $p \leq .001$ @ $p \leq .01$

and/or policy manuals may exist and regulations may be adhered to, the processes examined here have little or no reference to official channels of communication and chains of command. This means that there are no specific regulations and/or sanctions indicating how much influence staff members have over each other, how much cooperation there should be within and among levels, nor what kinds of conflict are permissible among the staff. In other words, these are forms of social interaction among co-workers for which no norms have been established.[9]

The data in Table 5 indicate an overall negative association among the elements that comprise environmental categories and the elements that make up the internal social process categories. This appears to indicate that the greater the environmental activity impinging on the organizations, the greater the restriction on social processes within the organizations.

Apparently, internal social processes are very responsive to the variety of elements that make up the environment. It seems that the more that organizations engage in interaction, the less that control can be exercised over internal processes. Moreover, these data support Barnard's contention that:

> . . . at root the cause of the instability and limited duration of formal organizations lies in the forces outside. These forces both furnish the material which are used by organizations and limit their actions. (1938: 6)

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[9] It is important to establish this fact because, in the construction of the Staff Questionnaire, the items pertaining to these processes were not intended to convey the idea nor be interpreted as part of the formal structure of the agencies.

So that, if the primary organizational problem is survival, as Stinchcombe (1965), Barnard (1938), and Downs (1967) have suggested, these data indicate that organizational self-preservation may depend upon regulating the number and kinds of interactions they have with other organizations. If this solution is impractical because of legislative mandates or common funding, then the solution would appear to lie in: a) deciding which environmental elements are pertinent to the well-being of the organization, and b) counteracting those elements which it does not need.[10]

This observation is justified by an examination of Table 5. For example, the elements that make up the environmental category "competition", viz., SIMSERV, COMPETE, and SAMEMONY, all are positively correlated with the elements of the internal process category "competition/conflict", i.e., STFCONFL, NOEFCADM, PROBPROC, and PORNCOMM. These data indicate that the more similar the services (SIMSERV), the greater the staff conflict over agency goals (STFCONFL) (.33). The more that agencies receive money from the same sources (SAMEMONY), the greater the staff conflict over agency goals (.30) and, at the same time, the greater the lack of effective administration (NOEFCADM) (.39).

The elements comprising the environmental category "cooperation" are even more indicative of the constraining influence of interorganizational relationships on internal processes. RELY, REFER, and SUPPORT all inhibit the exercise of power by staff members within the

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[10]This organizational problem is akin to the psychological problem concerning perception and cognition of all the stimuli which constantly bombard our senses.

organizations. For example,

(1) the more that agencies rely on other agencies to help provide services to their own clients (RELY), the lower the degree of participation in decision-making by staff members regarding:

- hiring and promoting of staff (STAFFDEC) (-.50);
- allocation of resources (RESALLOC) (-.37);
- changing programs and services (CHNGPROG) (-.61);

(2) the more that agencies refer unserved clients to other agencies, the lower the degree of staff participation in internal decision-making regarding:

- hiring and promoting of staff (STAFFDEC) (-.38);
- allocation of resources (RESALLOC) (-.39);
- changing programs and services (CHNGPROG) (-.48);

(3) the more that other agencies provide cooperation and support, the lower the staff members' participation in decisions regarding:

- hiring and promoting of staff (STAFFDEC) (-.44)
- allocation of resources (RESALLOC) (-.50)
- changing programs and services (CHNGPROG) (-.68).

Similar negative relationships between interorganizational cooperation, as measured in this study, are maintained as we observe the correlation coefficients of the other internal process elements with RELY, REFER, and SUPPORT.[11]

The other environmental categories, such as Joint Programs,

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[11]Rather than list all these observations here, the reader is referred to Table 5.

Sharing, and Communication are also negatively related to the internal processes; however, the majority of these correlations are negligible and those that are of some magnitude appear to have the same inhibiting effect on internal processes. For example, we see that the greater the sharing of facilities (SHARFACL) among agencies, the lower the degree of:

- decision making among staff (STAFFDEC) (-.40);
- consulting at one's own level (CONSOWNL) (-.43);
- consulting with direct subordinates (CONSSUBS) (-.45);
- influence of lower level staff (INFLLOLV) (-.34);
- influence of own level staff (INFLONLV) (-.46);
- influence of supervisors (INFLSUPR) (-.40).

Similar observations can be made concerning the environmental category Communication (COMUNCTE) and the element Sharing Staff (SHARSTAF).

Thus, Inter-organizational Cooperation may be the most important environmental variable as it appears to inhibit the exercises of options within the organizations in a variety of ways; viz., the greater the amount of cooperation among organizations, as measured by RELY, REFER, and SUPPORT, the more that the:

- exercise of power is reduced among staff within the organization;
- communication among staff is restricted;
- internal influence is reduced;
- internal cooperation is reduced;
- competition/conflict among staff is heightened.

These data also confirm the general statement of Proposition 2; viz., that diverse elements of the environment affect a wide variety

of internal process elements in a number of ways. For example, the three elements - SIMSERV, COMPETE, and SAMEMONY - which comprise the environmental category, Competition:

(1) have virtually no impact on staff decision-making about staff hiring and promoting, resource allocation, or changing programs and services;

(2) have little or no effect on internal communication with the exception that receiving money from the same source is positively associated with: (a) seeking information inside the organization (SKINFOIN) (.33), and (b) seeking information outside the organization (SKINFOOT) (.24);

(3) have somewhat of an effect on the internal influence category, namely:

a) the more similar the services offered by the agencies, the less the influence of subordinates on one's job (-.32);

b) the more that money is received from the same source, the greater the influence of the Agency Board on one's job (.38); and,

c) the more that money is received from the same source, the greater the influence of upper level personnel on one's job (.31);

(4) have a moderate effect on competition/conflict within the agencies, namely:

a) the more similar the services offered, the greater the staff conflict over agency goals (.33) and the greater the problematic nature of office practices and procedures (.35);

b) the more that money is received from the same source, the greater the staff conflict over agency goals (.30), and the greater the lack of effective administration (.39).

Similarly, the elements comprising interorganizational Cooperation have a variety of effects on the internal process elements. As an example, we can examine the element SUPPORT and its effects on a variety of internal elements, viz., the greater the amount of cooperation and support which agencies provide each other:

- the less the staff participation in
  - a) decisions about themselves (-.44),
  - b) decisions about resource allocations (-.50),
  - c) decisions about changing programs and services (-.68);
- the less consulting at one's own level takes place (-.45);
- the less consulting with direct subordinates (-.48);
- the more the seeking of information outside the agency (.24);
- the less the influence of subordinates on one's job (-.30);
- the less the cooperation of the Board (-.61);
- the less the cooperation of lower level staff (-.43);
- the more the cooperation of own level staff (.25);
- the less the cooperation of upper level staff (-.50);
- the more the staff conflict over agency goals (.24).

Parallel observations concerning other environmental elements and the internal process elements can be made by the reader in Table 5.

Even though the data appear to support Proposition 2 in general, there is some difficulty in substantiating all the related minor propositions. The following discussion relates to these sub-propositions.

Proposition 2(a). The greater the diversity of environmental interaction impinging on organizations, the greater the degree of competition and conflict within the organizations.

This proposition is generally substantiated by the data. Virtually all the environmental elements are positively related to the internal conflict elements. The few negative correlations are essentially negligible. It appears that SIMSERVE, COMPETE, SAMEMONY and RELY are the four environmental elements that have the greatest impact on internal competitive/conflictual processes.

In general, then, the more interaction among agencies (or to phrase this another way: the more open the agencies are to environmental influences) the more discord is engendered inside the agencies. That is, staff do not agree on agency goals; effective internal administration is seen as lacking; office procedures and practices are problems rather than solutions for the work flow; and poor internal communication is experienced.

Proposition 2(b). The greater the diversity of environmental interaction impinging on organizations, the greater the exercise of vertical influence.

In light of the data it is difficult to accept this proposition as stated. Virtually all the environmental elements are negatively related to the exercise of influence in any direction in the agencies. For example, RELY, REFER, and SUPPORT are all negatively related with the elements that compose the category Influence. The same is true for sharing facilities and sharing staff, exchanging opinions and information, and running programs for other agencies, i.e., all are negatively or insignificantly related to the influence elements.

There are, however, two notable exceptions to this general pattern. The first is that SIMSERV, COMPETE, and SAMEMONY, the elements for interorganizational competition, are positively associated

with the influence of the agency Board on one's job, viz.,

- SIMSERV and INFLBORD is .15;
- COMPETE and INFLBORD is .26;
- SAMEMONY and INFLBORD is .38.

The greater the number of agencies providing similar services, or competing for the same resources, or receiving money from the same sources, the greater is the influence of the agency Board members within the agencies. In other words, the more competitive the environment, the greater the vertical (top-down) influence exercised in an organization. This appears to support the proposition, but only if we focus on the relationship between one environmental category and one internal influence element.

The second exception is that SAMEMONY is positively related to all the internal influence elements, i.e., the more that agencies receive money from the same sources, the greater the influence of:

- the Board on one's job (INFLBORD) (.38);
- the agency head (INFLAGHD) (.16);
- lower level staff (INFLLOLV) (.28);
- own level staff (INFLONLV) (.17);
- upper level staff (INFLUPLV) (.31);
- direct subordinates (INFLSUBS) (.22);
- supervisors on one's job (INFLSUPR) (.25).

Here again there is partial support for the proposition as stated, especially if I draw any implications from the fact that the two highest correlations deal with the influence of the Board on one's job (.38) and with the influence of upper level staff on one's job (.31). Both of these are vertical, top-down, types of internal

influence.

In light of the above data, Proposition 2(b) could be restated as: the greater the amount of competition impinging on an organization, the greater the exercise of vertical, top-down, influence in an organization.

Proposition 2(c). The greater the diversity of environmental interaction impinging on organizations, the greater the exercise of power at all levels throughout the organization.

Power is operationally defined as the staff's degree of participation in decision-making concerning three major organizational processes, viz., staff hiring and promoting (STAFFDEC), the allocation of resources (RESALLOC), and changing programs and services (CHNGPROG).

The data do not support proposition 2(c). In the prior discussion of how the environmental elements exerted a general over-all constraint on internal processes, I examined in some detail the negative effect of the environmental elements RELY, REFER, and SUPPORT, which comprise the category of Cooperation, on the internal Power elements. This same observation is true regarding the impact of all types of environmental elements on the internal process of Power; for example,

a) the more that agencies share staff members (SHARSTAF), the less that agency staff participate in decisions regarding the change of programs or services (CHNGPROG) (-.59);

b) the more that agencies share facilities (SHARFACL), the less that agency staff participate in decisions regarding staff hiring and promoting (STAFFDEC) (-.40);

c) the more that agencies provide support and cooperation for

each other (SUPPORT), the less that agency staff participate in decisions regarding the allocation of resources (RESALLOC) (-.50). Thus, there is a real loss of power among agency staff members due to cooperative relationships among the agencies. Although the proposition as stated is not supported by the data, I do have a very good indicator here as to why staff members may react unfavorably to working cooperatively with other agencies, i.e., they experience a reduction of power within their own agencies.

Proposition 2(d). The greater the diversity of environmental interaction impinging on organizations, the greater the degree of cooperation and support at all levels (in the organization).

In examining the elements pertinent to the discussion of this sub-proposition, I again note the value of what I have been referring to as "conceptual disaggregation" and the focusing on "multiple relations". My reason for stating this is that despite the general constraining influence of environmental elements on cooperation within the agencies, there are still notable exceptions. For example, the more the sharing of facilities for serving clients (SHARFACL), the less the:

- cooperation of the Board for doing one's job (COOPBORD) (-.24);
- cooperation of lower level staff (COOPLOLV) (-.43);
- cooperation of own level staff (COOPONLV) (-.23);
- cooperation of upper level staff (COOPUPLV) (-.38).

And again, the more that agencies run programs for other agencies, the less the:

- cooperation of the Board (COOPBORD) (-.27);
- cooperation of lower level staff (COOPLOLV) (-.36);
- cooperation of own level staff (COOPONLV) (-.21);
- cooperation of upper level staff (COOPUPLV) (-.20).

However, the providing of similar services (SIMSERV), the receiving of money from the same sources (SAMEMONY), and receiving support and cooperation from other agencies (SUPPORT) are positively related with cooperation of own level agency staff for doing one's job; viz.,

- COOPONLV and SIMSERV is .26;
- COOPONLV and SAMEMONY is .27;
- COOPONLV and SUPPORT is .25.

There is also weak cooperation from the agency board for doing one's job when joint planning (JNTPLAN) is involved (.18).

In view of these element relations, cooperation for doing one's job in the agencies does occur, but only in light of some aspects of environmental competition and cooperation and principally from one's own level in the agency (COOPONLV). This may imply a pride of craft and a "we-feeling" among staff members at their own level especially as they experience similar environmental demands upon them as a group.

Thus, again, the proposition as stated is not supported by the data, but a reformulation is suggested, viz., the greater the degree of environmental competition on organizations, the greater the cooperation among agency staff at their own levels for accomplishing their tasks.

Proposition 2(e). The greater the diversity of environmental interaction impinging on organizations, the greater the rate of overall communication (within the organizations).

Consulting about problems and procedures, as well as seeking job related information, either inside or outside the organization, is the operational definition of the internal process called Communication. In examing Table 5, I again note the general constraining effect of environmental elements upon communication at all levels. For example, the sharing of staff (SHARSTAF) for providing client services is negatively related to all the internal communication elements, viz., the more that the sharing of staff among agencies occurs, the less the:

- consulting with supervisors (CONSUPRV) (-.20);
- consulting with upper level staff (CONSUPRL) (-.19);
- consulting with own level personnel (CONSOWNL) (-.48);
- consulting with direct subordinates (CONSSUBS) (-.53);
- seeking information inside the agency (SKINFOIN) (-.30);
- seeking information outside the agency (SKINFOOT) (-.17).

Similarly, the more that agencies run programs for other agencies (PROGFOR), the less the amount of consulting and seeking job related information inside the agencies. Also, the greater the cooperation among agencies (in terms of RELY, REFER, and SUPPORT) the lower the rate of consulting with others about job related procedures and problems at all levels of the agency. The few positive correlations that are found, for example,

- CONSUPRV and COMPETE .18;
- SKINFOIN and SAMEMONY .33;
- SKINFOOT and SAMEMONY .24,

do not offer enough information for an alternate proposition concerning internal communication. Observe, however, that one of the

environmental Competition elements, SAMEMONY, in the above mentioned correlations, is positively related with seeking job related information both inside and outside the agency. This one environmental element, then, does have the expected effect within the organizations but only as measured by SKINFOIN and SKINFOOT. Further examination of Table 5 indicates that SKINFOOT is also positively correlated with some other environmental elements, viz.,

- SUPPORT and SKINFOOT .24;
- COMUNCTE and SKINFOOT .26;
- RUNPROJ and SKINFOOT .25.

These again are low correlations but they are supportive of the sub-proposition 2(e) as stated. However, seeking information outside the organization, may, in this instance, reflect a specific job related function of the staff member. Therefore, Proposition 2(e) is not substantiated by these data.

This concludes the present chapter. I have examined the elements which comprise the environment, the structure, and the internal processes of social service agencies. I have also elaborated on the "multiple relations" among the environmental elements and internal process elements, while trying to apply the idea of "conceptual disaggregation". Finally, I have tried to relate my findings to specific pertinent observations on organizations as found in the literature. More pertinent conclusions and implications will be drawn in the summary chapter of this dissertation.

The introduction of selected intervening or structural variables is appropriate at this point. If the model I am working with is

basically sound, there should be some observable differences on the multiple relations among environmental and process elements when structural elements are introduced into the analysis.

DATA ANALYSIS - II

Throughout this dissertation I have differentiated between structural and processual organizational "elements". I have indicated that, theoretically and empirically, structure and process are discrete categories and that structure mediates the effect of environment on internal organizational processes. I have just examined a variety of "organizational environment-internal process relationships" and have observed how specific "elements" of environmental categories impacted upon "elements" of internal process categories. In this chapter, I test the Environment-Structure-Process model and examine whether and/or how the structural categories affect the impact of environment on internal organizational processes.

The organizational literature indicates that a majority of studies have examined, among others, the following "structural" variables: size; the mode of work or technology; organizational age; worker, manager, and professional ratios; span of control; ownership or auspices; and the degree of formalization. In one way or another, these variables have been designated as important for understanding organizational behavior. There is sufficient information to indicate that these are significant elements.

On the basis of the literature review and in conjunction with the correlation matrices concerning Structure-Environment elements and

Structure-Process elements,[1] the intervening (structural) elements I have selected to control on are:

a) degree of freedom to use own judgment in day to day operations on the job (JOBFRE);

b) the professional-administrative ratio (PROAMRTO);

c) size of agency staff (SIZSTAFF);

d) sponsorship, i.e., private or public (AUSPICES);

e) technology, i.e., the kind of services rendered either distributive or treatment (WORKMODE).

My reasons for selecting these particular structural elements are that the variables demonstrate many high zero-order correlations with either the process or the environment elements; and secondly, these are the variables that are most often discussed in the literature.

Proposition 3. In general, the organizational structure, through such morphological variables as: age, type of technology, professional-administrative ratio, and size of agency staff will diminish the effect of environmental impact on internal organizational processes.

In examining the first-order partial correlations and comparing them with the zero-order correlations of Table 5, it is evident that the relationships among the environmental and the internal social process elements <u>are</u> affected in a variety of ways. Tables 6 through 10 carry the first-order partials on the above mentioned intervening variables.

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[1] See Appendices B and C.

At this point, my intention is not so much to concentrate on changes in the individual cells due to partialing out the effects of intervening variables, as it is to examine the patterns of changes among the independent, i.e., environmental, and the dependent, i.e., process, variables in light of Propositions 3 and 4. It soon becomes apparent that the structural variables have an "explanatory effect" in some instances and "suppressor" effect in other instances.[2]

The partial correlations present a reasonable amount of data to test the model I have been proposing. Tables 6 through 10 indicate that structure has an effect on the relationships among environment and process elements.[3] In their entirety, these tables demonstrate one manner in which thinking in terms of multiple causation or, as I have been using the term, "multiple relations" can be approached.

It is apparent from these data that not all the structural elements have the same effects on the environment-process relationships. Certain structural elements have virtually no mediating influence, while other elements do. In the preceeding chapter, I examined

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[2]The terminology "explanatory" and "suppressor" for the intervening variables is found in James A. Davis, Elementary Survey Analysis, 1971: 82. He states: "When the zero-order is nonnegligible but the partial is .00 or negligible, we say that 'T explains Y'. That is, the reason we observed the XY correlation was because we had not controlled for T, and when we do, the relationship is no longer there." Also, "It can happen that the partial correlation is even stronger than the zero-order. If so, we call the T a "suppressor" variable because it has been acting to suppress the 'true' strength of the relationship which only becomes apparent when T has been controlled."

[3]I request the reader's indulgence in examining these tables. Bear in mind that the full impact of each of the structural elements on the environmental-internal process relationships is what is being demonstrated.

TABLE 6
FIRST-ORDER PARTIAL CORRELATIONS FOR ENVIRONMENT AND PROCESS VARIABLES CONTROLLING FOR WORKMODE

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROJ	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
STAFFDEC	-.36@	-.07	-.06	-.38@	-.48@	-.08	-.16	-.13	-.07	-.49@	-.43@	-.14	-.07
RESALLOC	-.62*	-.31	-.22	-.42@	-.72*	-.20	-.31	-.40@	-.19	-.47@	-.62*	-.33	-.23
CHNGPROG	-.41@	-.44@	-.23	-.35@	-.59*	-.12	-.44@	-.43@	-.26	-.46@	-.58*	-.26	-.14
CONSUPRV	-.37@	.02	-.08	-.19	-.10	.07	-.17	-.40@	-.09	-.14	-.22	-.50@	-.03
CONSUPRL	-.52@	-.19	-.33	-.41@	-.51@	-.04	-.40@	-.38@	-.04	-.35@	-.46@	-.40@	-.08
CONSOWNL	-.31	-.28	-.22	-.35@	-.47@	-.24	-.45@	-.31	-.13	-.36@	-.52@	-.45@	-.14
CONSSUBS	-.14	.03	.12	-.12	-.08	.07	-.24	.01	.42@	.09	-.48@	-.19	.43@
SKINFOIN	.007	-.04	.25	-.04	.08	.11	.04	.07	.36@	.33	-.37@	.04	.62*
SKINFOOT	-.37@	.14	.15	-.22	-.31	.39@	-.29	.01	.46@	-.07	-.12	.03	.27
INFLBORD	-.38@	.20	.02	-.02	.02	-.05	-.15	.08	.17	-.20	.06	.08	-.03
INFLAGHD	-.20	-.14	-.05	-.21	-.19	-.06	-.37@	-.01	.36@	-.14	-.42@	-.05	.01
INFLLOLV	-.49@	.06	-.02	-.47@	-.28	.12	-.51@	-.40@	.24	-.24	-.42@	-.25	.10
INFLONLV	-.35@	.01	-.04	-.25	-.19	.06	-.36@	-.09	.33	-.17	-.16	.01	.08
INFLUPLV	-.42@	-.02	-.08	-.35@	-.30	-.26	-.37@	-.14	.22	-.18	-.28	-.40@	-.08
INFLSUBS	-.44@	.12	.05	-.40@	-.26	.05	-.40@	-.24	.28	-.35	-.27	-.18	.01
INFLSUPR	-.44@	.14	.16	-.37@	-.56@	.02	-.26	-.19	.05	-.21	-.19	-.35@	-.03
COOPBORD	-.33	-.27	-.05	-.42@	-.53@	-.03	-.44@	-.29	-.05	-.46@	-.48@	-.33	-.18
COOPLOLV	-.08	.03	-.02	-.14	.09	.21	-.27	-.14	.40@	-.13	-.18	-.15	.05
COOPONLV	-.52@	-.18	.04	-.47@	-.49@	-.29	-.38@	-.17	-.05	-.50@	-.29	-.22	-.25
COOPUPLV	.36@	.18	.02	.14	.12	.43@	.24	.13	.39@	.43@	.17	.16	.32
STFCONFL	.22	-.01	-.16	-.06	.03	.30	.02	.03	.47@	.25	.14	.05	.01
NOEFCADM	.16	-.02	-.17	-.12	-.05	.40@	-.21	-.10	.36@	.05	.05	.03	.19
PROBPROC	.09	.19	.03	.01	-.13	.40@	.19	-.03	.22	.27	.17	-.14	.04
PORNCOMM	.10	-.15	-.24	.09	.002	-.16	.05	.22	-.17	.20	.26	.03	-.02

* $p \leq .001$ @ $p \leq .01$

TABLE 7
FIRST-ORDER PARTIAL CORRELATIONS FOR ENVIRONMENT AND PROCESS
CONTROLLING FOR AUSPICES

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROJ	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
STAFFDEC	-.41@	-.01	-.21	-.43@	-.57@	.04	-.17	-.18	-.07	-.45@	-.47@	-.17	.02
RESALLOC	-.63*	-.30	-.05	-.49@	-.71*	-.17	-.31	-.42@	-.19	-.47@	-.59*	-.36@	-.22
CHNGPROG	-.38@	-.45@	.19	-.33	-.49@	-.15	-.44@	-.43@	-.28	-.44@	-.48@	-.33	-.23
CONSUPRV	-.35@	-.004	.10	-.17	-.04	.02	-.16	-.39@	-.09	-.17	-.19	-.51@	-.08
CONSUPRL	-.51@	-.21	.04	-.39@	-.45@	-.08	-.40@	-.38@	-.05	-.36@	-.41@	-.42@	-.13
CONSOWNL	-.39@	-.23	-.20	-.44@	-.61*	-.09	-.50@	-.41@	-.15	-.29	-.56@	-.58@	-.07
CONSSUBS	-.07	-.04	.47@	-.05	.08	-.06	-.22	.04	.33	.06	-.30	-.24	.17
SKINFOIN	.11	-.16	.63*	.07	.32	-.17	.05	.14	.28	.20	-.17	.03	.25
SKINFOOT	-.30	.07	.40@	-.16	-.15	.27	-.27	.03	.38@	-.08	-.01	-.03	.07
INFLBORD	-.38@	.19	.15	-.02	.04	-.04	-.16	.07	.15	-.18	.09	.02	-.09
FLAGHD	-.14	-.19	.40@	-.16	-.04	-.14	-.34@	-.004	.28	-.13	-.26	-.13	-.16
INFLLOLV	-.39@	-.01	.43@	-.37@	-.08	-.02	-.46@	-.34	.17	-.25	-.25	-.29	-.10
INFLONLV	-.36@	.01	.14	-.26	-.16	.08	-.38@	-.11	.31	-.14	-.12	-.06	.01
INFLUPLV	-.46@	.02	-.09	-.39@	-.35@	-.19	-.38@	-.18	.21	-.14	-.30	-.46@	-.04
INFLSUBS	-.45@	.12	.19	-.40@	-.23	.08	-.42@	-.27	.25	-.32	-.22	-.27	-.06
INFLSUPR	-.54@	.25	-.36@	-.47@	-.76*	.28	-.28	-.28	.07	-.11	-.29	-.42@	.15
COOPBORD	-.36@	-.27	.18	-.46@	-.54@	.05	-.48@	-.35@	-.10	-.41@	-.43@	-.49@	-.25
COOPLOLV	-.001	-.07	.55@	-.05	.27	.01	-.22	-.09	.27	-.14	.003	-.21	-.19
COOPONLV	-.66*	-.11	-.17	-.61*	-.69*	-.10	-.46@	-.28	-.07	-.44@	-.35@	-.38@	-.18
COOPUPLV	.47@	.04	.52@	.25	.37@	.13	.26	.22	.36@	.30	.29	.21	.06
STFCONFL	.29	-.10	.39	.02	.23	.09	.03	.08	.42@	.17	.24	.05	-.17
NOEFCADM	.24	-.11	.39@	-.04	.14	.19	-.19	-.04	.31	-.02	.15	.03	-.02
PROBPROC	.16	.09	.41@	.09	.08	.20	.19	.02	.18	.19	.26	-.13	-.14
PORNCOMM	.13	-.17	-.12	.11	.03	-.23	.06	.26	-.15	.16	.24	.10	.002

* $p \leq .001$ @ $p \leq .01$

TABLE 8
FIRST-ORDER PARTIAL CORRELATIONS FOR ENVIRONMENT AND PROCESS VARIABLES CONTROLLING FOR JOBFRE

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROJ	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
STAFFDEC	-.53@	-.09	-.26	-.49@	-.57@	-.02	-.23	-.35@	-.11	-.47@	-.61*	-.49@	-.07
RESALLOC	-.69*	-.33	-.06	-.52@	-.70*	-.19	-.34@	-.52@	-.21	-.46@	-.66*	-.58*	-.25
CHNGPROG	-.45@	-.50@	.18	-.36@	-.48@	-.17	-.48@	-.56@	-.31	-.44@	-.56@	-.58*	-.28
CONSUPRV	-.29	.05	.15	-.13	-.03	.03	-.12	-.31	-.06	-.17	-.12	-.45@	-.02
CONSUPRL	-.50@	-.19	.06	-.38@	-.44@	-.07	-.39@	-.38@	-.04	-.36@	-.41@	-.49@	-.11
CONSOWNL	-.40@	-.30	-.19	-.42@	-.51@	-.20	-.50@	-.47@	-.15	-.34@	-.62*	-.78*	-.13
CONSSUBS	-.01	-.0006	.51@	-.01	.09	-.06	-.19	.15	.37@	.05	-.26	-.13	.22
SKINFOIN	.13	-.08	.62*	.06	.26	-.05	.07	.19	.28	.25	-.12	.10	.30
SKINFOOT	-.32	.07	.40@	-.17	-.15	.26	-.28	.02	-.38@	-.07	-.01	-.06	.07
INFLBORD	-.30	.22	.21	.05	.09	-.10	-.11	.24	.20	-.23	.18	.32	-.04
INFLAGHD	-.08	-.16	.44@	-.11	-.01	-.17	-.31	.11	.32	-.16	-.22	.04	-.13
INFLLOLV	-.37@	.01	.46@	-.36@	-.08	-.01	-.45@	-.32	.19	-.25	-.23	-.27	-.08
INFLONLV	-.28	.02	.19	-.20	-.11	.01	-.33	.02	.35@	-.20	-.06	.19	.05
INFLUPLV	-.35@	.05	-.02	-.31	-.29	-.28	-.32	.03	.30	-.23	-.21	-.21	.03
INFLSUBS	-.37@	.13	.24	-.34@	-.17	-.01	-.37@	-.15	.29	-.37@	-.16	-.08	-.02
INFLSUPR	-.66*	.13	-.41@	-.52	-.71*	.14	-.35@	-.48@	.03	-.17	-.43@	-.83*	.04
COOPBORD	-.50@	-.40@	.14	-.54@	-.52@	-.06	-.58@	-.60@	-.15	-.47@	-.60@	nc.	-.39@
COOPLOLV	.08	-.02	.61*	-.01	.28	.02	-.18	.03	.32	-.15	.08	-.05	-.15
COOPONLV	-.59*	-.18	-.13	-.52@	-.52@	-.25	-.41@	-.26	-.05	-.48@	-.36@	-.39@	-.21
COOPUPLV	.46@	.13	.49@	.22	.27	.26	.26	.26	.34@	.36@	.34	.30	.12
STFCONFL	.35@	-.02	.42@	.04	.19	.17	.07	.19	.45@	.21	.32	.23	-.10
NOEFCADM	.26	-.04	.39@	-.04	.10	.25	-.17	-.003	.32	.02	.20	.11	.03
PROBPROC	.16	.14	.40@	.07	.02	.26	.19	.03	.17	.23	.29	-.18	-.11
PORNCOMM	.10	-.14	-.13	.08	-.02	-.13	.05	.23	-.16	.20	.24	.04	.01

* $p \leq .001$ @ $p \leq .01$ nc = not computable

TABLE 9
FIRST-ORDER PARTIAL CORRELATIONS FOR ENVIRONMENT AND PROCESS VARIABLES CONTROLLING FOR PROAMRTO

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROJ	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
STAFFDEC	-.50@	-.14	-.18	-.46@	-.63*	-.02	-.22	-.13	-.08	-.53@	-.59*	-.13	-.05
RESALLOC	-.68*	-.37@	-.03	-.51@	-.75*	-.19	-.34@	-.40@	-.20	-.49@	-.66*	-.34@	-.25
CHNGPROG	-.41@	-.51@	.21	-.32	-.50@	-.18	-.46	-.40@	-.28	-.46@	-.52@	-.30	-.25
CONSUPRV	-.38@	-.01	.10	-.18	-.07	.05	-.18	-.39@	-.10	-.15	-.21	-.51@	-.09
CONSUPRL	-.60*	-.28	.06	-.43@	-.53@	-.06	-.46@	-.37@	-.07	-.37@	-.50@	-.44@	-.17
CONSOWNL	-.35@	-.30	-.15	-.38@	-.52@	-.20	-.47@	-.31	-.12	-.36@	-.57@	-.43@	-.10
CONSSUBS	-.04	.005	.46@	-.04	.11	-.05	-.20	.02	.34@	.08	-.28	-.23	.19
SKINFOIN	.12	-.06	.58@	.05	.30	-.05	.07	.07	.26	.28	-.12	-.05	.29
SKINFOOT	-.33	.06	.41@	-.17	-.16	.26	-.29	.03	.38@	-.08	-.02	-.04	.06
INFLBORD	-.37@	.17	.16	-.01	.06	-.09	-.16	.09	.15	-.21	.09	.05	-.10
INFLAGHD	-.11	-.17	.39@	-.14	-.01	-.16	-.33	.0002	.29	-.13	-.25	-.11	-.15
INFLLOLV	-.41@	-.02	.43@	-.38@	-.11	-.001	-.48@	-.34	.17	-.23	-.27	-.29	-.11
INFLONLV	-.36@	-.04	.15	-.24	-.15	.02	-.38@	-.08	.31	-.18	-.14	-.02	-.01
INFLUPLV	-.47@	-.04	-.07	-.37@	-.34	-.24	-.39@	-.14	.22	-.19	-.33	-.40@	-.07
INFLSUBS	-.45@	.07	.20	-.38@	-.22	.004	-.42@	-.23	.25	-.36@	-.24	-.21	-.08
INFLSUPR	-.55@	.12	-.30	-.43@	-.72*	.12	-.30	-.19	.07	-.22	-.35	-.29	.08
COOPBORD	-.35@	-.35@	.21	-.42@	-.48@	-.07	-.47@	-.27	-.08	-.48@	-.46@	-.37@	-.28
COOPLOLV	-.02	-.08	.55@	-.07	.24	.03	-.24	-.10	.27	-.13	-.01	-.22	-.20
COOPONLV	-.55@	-.18	-.11	-.49@	-.53@	-.25	-.39@	-.17	-.04	-.50@	-.33	-.20	-.19
COOPUPLV	.37@	.09	.45@	.17	.24	.26	.21	.14	.30	.36@	.26	.07	.07
STFCONFL	.25	-.07	.36@	-.01	.16	.17	.01	.04	.39@	.22	.23	-.02	-.16
NOEFCADM	.21	-.07	.35@	-.07	.09	.26	-.20	-.08	.29	.04	.16	-.04	-.001
PROBPROC	.09	.08	.39@	.03	-.03	.27	.15	-.01	.15	.23	.22	-.20	-.15
PORNCOMM	.09	-.15	-.13	.08	-.03	-.13	.04	.21	-.16	.20	.23	.04	.005

* $p \leq .001$ @ $p \leq .01$

TABLE 10
FIRST-ORDER PARTIAL CORRELATIONS FOR ENVIRONMENT AND PROCESS VARIABLES CONTROLLING FOR SIZSTAFF

	SIMSERV	COMPETE	SAMEMONY	RELY	REFER	SUPPORT	COMUNCTE	PROGFOR	RUNPROJ	JNTPLAN	SEEKFUND	SHARFACL	SHARSTAF
STAFFDEC	-.38@	-.02	-.19	-.38@	-.53@	-.02	-.15	-.13	-.04	-.46@	-.46@	-.09	.04
RESALLOC	-.60@	-.27	-.04	-.46@	-.67*	-.16	-.31	-.37@	-.13	-.44@	-.58*	-.30	-.16
CHNGPROG	-.42@	-.49@	.20	-.31	-.52@	-.19	-.43@	-.42@	-.30	-.50@	-.49@	-.31	-.26
CONSUPRV	-.31	.06	.10	-.15	.02	.08	-.17	-.37@	-.04	-.08	-.16	-.48@	-.01
CONSUPRL	-.58*	-.22	.04	-.40@	-.51@	-.08	-.40@	-.39@	-.07	-.39@	-.43@	-.44@	-.15
CONSOWNL	-.34	-.27	-.16	-.36@	-.52@	-.21	-.45@	-.32	-.12	-.37@	-.53@	-.43@	-.08
CONSSUBS	-.19	-.10	.46@	-.09	-.01	-.09	-.22	-.01	.29	-.01	-.35@	-.31	.10
SKINFOIN	-.10	-.23	.60*	-.03	.11	-.12	.03	-.01	.15	.16	-.24	-.16	.15
SKINFCOT	-.46@	.01	.40@	-.20	-.28	.22	-.28	-.02	.33	-.18	-.05	-.11	-.02
INFLBORD	-.33	.22	.16	.01	.14	-.06	-.15	.12	.22	-.17	.12	.09	-.05
INFLAGRD	-.24	-.26	.40@	-.18	-.12	-.20	-.34@	-.04	.24	-.23	-.30	-.17	-.26
INFLLOLV	-.55@	-.08	.43@	-.42@	-.21	-.05	-.47@	-.40@	.10	-.35@	-.30	-.37@	-.20
INFLONLV	-.43@	-.06	.14	-.26	-.20	-.01	-.37@	-.12	.29	-.25	-.14	-.05	-.05
INFLUPLV	-.45@	.005	-.07	-.35@	-.31	-.24	-.36@	-.14	.25	-.18	-.29	-.39@	-.04
INFLSUBS	-.46@	.09	.20	-.37@	-.21	-.003	-.40@	-.24	.27	-.38@	-.22	-.22	-.08
INFLSUPR	-.38@	.28	-.30	-.36@	-.58@	.17	-.24	-.15	.19	-.10	-.23	-.21	.24
COOPBORD	-.31	-.30	.20	-.39@	-.45@	-.07	-.43@	-.27	-.06	-.48@	-.40@	-.36@	-.26
COOPLOLV	-.12	-.14	.55@	-.10	.17	-.02	-.23	-.15	.21	-.23	-.04	-.29	-.31
COOPONLV	-.40@	-.02	-.11	-.46@	-.38@	-.18	-.42@	-.08	.15	-.38@	-.26	-.08	-.01
COOPUPLV	.20	-.06	.48@	.11	.05	.19	.23	.04	.17	.23	.20	-.07	-.13
STFCONFL	.04	-.24	.38@	-.10	-.06	.08	.01	-.07	.27	.05	.16	-.18	-.41
NOEFCADM	.01	-.23	.37@	-.15	-.12	.19	-.22	-.19	.16	-.15	.08	-.18	-.20
PROBPROC	.03	.05	.38@	.02	-.10	.23	.17	-.07	.09	.17	.22	-.27	-.24
PORNCOMM	.08	-.16	-.13	.07	-.05	-.15	.05	.20	-.20	.19	.22	.02	-.02

* $p \leq .001$ @ $p \leq .01$

various constraining influences of interorganizational relations upon internal processes. Now, by introducing the structural elements, it becomes evident how, in many instances, the original zero-order correlations change dramatically. To demonstrate these effects, Table 11 focuses on the relationships between the sharing of facilities among agencies (SHARFACL) and selected internal processes.

In Table 11 two structural elements, the Professional-Administrative ratio (PROAMRTO) and the number of agency staff (SIZSTAFF), have virtually no effect upon the relationship between sharing facilities (SHARFACL) and consulting with own level staff (CONSOWLV). All three correlations are -.43. However, when controlling for degree of discretion on the job (JOBFRE), the correlation between sharing facilities and consulting at one's own level increases to -.78. Also, controlling for any one of the structural variables reduces the moderate negative correlation between SHARFACL and influence of own level staff (INFLONLV) to zero.

These data indicate that none of the three structural variables - WORKMODE, PROAMRTO, and SIZSTAFF - affect the original zero-order correlation between sharing facilities for serving clients (SHARFACL) and consulting at one's own level (CONSOWLV). This provides a basis for deciding that these structural elements did <u>not</u> mitigate the effects of environment on internal social processes and that sharing facilities does lower the amount of internal consulting at one's own level. However, when controlling for JOBFRE as a structural variable, we wee that the original correlation between SHARFACL and CONSOWLV increased from (-.43) to (-.78). So that the partial correlation is stronger than the zero-order correlation and Job Freedom, as a

TABLE 11.
COMPARISON OF ZERO-ORDER AND FIRST-ORDER CORRELATIONS
FOR SELECTED ENVIRONMENTAL AND INTERNAL PROCESS VARIABLES

Variables	Zero-Order	First-Order Partials				
		WORKMODE	AUSPICES	JOBFRE	PROAMRTO	SIZSTAFF
SHARFACL with STAFFDEC	-.40@	-.14	-.17	-.49@	-.13	-.09
SHARFACL with CONSOWLV	-.43@	-.45@	-.58@	-.78@	-.43@	-.43@
SHARFACL with CONSSUBS	-.45@	-.19	-.24	-.13	-.23	-.31
SHARFACL with INFLLOLV	-.34@	-.25	-.29	-.27	-.29	-.37@
SHARFACL with INFLONLV	-.46@	.01	-.06	.19	-.02	-.05
SHARFACL with INFLSUPR	-.40@	-.35@	-.42@	-.83*	-.29	-.21

@ $p \leq .01$ * $p \leq .001$

structural variable, did mitigate some of the effects of this particular environmental element (SHARFACL) on internal consulting among own level staff. JOBFRE served as a "suppressor" variable.

Similarly, in noting that all five structural variables reduce the negative zero-order correlation between sharing facilities and influence at own level (INFLONLV) (-.43) to practically zero, I can say that these are intervening variables and that they do mitigate the effect of the environmental element, sharing facilities, on the internal process element, own level influence on one's job.

Similar examples of structural effects are found throughout the data as presented in Tables 6 through 10. It is not feasible, nor is it reasonable at this point, to attempt an interpretation of all the possible reasons which may help explain the effects of the structural variables on all the original correlations. However, what the above information in Table 11 does provide is sufficient to accept the formulations of "loose coupling", "tight coupling" and "conceptual disaggregation" as presented by Wieck (1976), by Glassman (1973), and by Stanfield (1976). These concepts are applicable in a general systems (or open systems) approach for the study of complex organizations and their environments.

In light of the above discussion, I accept the general intent of Proposition 3, viz., that organizational structure serves as a mediator between the environment and internal social processes and maintains the stability of the organizational system. However, organizational structure does not always diminish the effects of the environment on internal processes. I reject the proposition as stated but note that structure does regulate environmental elements as they impinge upon the internal

processes. The difficulty, as demonstrated above, is that the same structural elements may actively control in one instance of environmental-process interaction and, in another instance, be relatively ineffective. The value of these findings relies upon the accuracy of conceptually and operationally disaggregating present constructs of organizational environment, structure, and processes.

I now turn to a discussion of Proposition 4 and its sub-propositions. Perhaps the most feasible manner to conduct this discussion (in light of all the possible data I could use) is to concentrate on the elements designated as important in the above examination of Propositions 2(a) to 2(e).

Proposition 4(a). Given a dynamic, changeable environment, the organizational structure lessens the degree of competition and conflict within the organization.

In the previous discussion of the data in Table 5, I observed that the environmental elements SIMSERV, COMPETE, SAMEMONY, and RELY have the most consistent and positive effect upon internal competition and conflict, i.e., the greater the activity of these environmental elements, the greater the internal conflict. In Table 12 I examine the same environmental and internal elements but partial out the effects of the structural elements. Again, it is evident that structural elements have different effects among different combinations of environment and process elements.

In examining the impact of receiving money from the same sources (SAMEMONY), the variable WORKMODE, as an intervening variable, reduces the effect of the environmental competitive element on internal competition; the other structural variables appear to be suppressing some

TABLE 12.
COMPARISON OF ZERO-ORDER AND FIRST-ORDER CORRELATIONS
FOR ENVIRONMENTAL AND INTERNAL PROCESS COMPETITION VARIABLES

Variables	Zero-Order	First-Order Partials			
		WRKMD*	AUSPO*	JBFRE*	PROAM*	SIZST*
STFCONFL/SAMEMONY	.30@	-.16	.39@	.42@	.36@	.38@
NOEFCADM/SAMEMONY	.39@	-.17	.39@	.39@	.35@	.37@
PROBPROC/SAMEMONY	.28	.03	.41@	.40@	.39@	.38@
PORNCOMM/SAMEMONY	.16	-.24	-.12	-.13	-.13	-.13
STFCONFL/COMPETE	.26	-.01	-.10	-.02	-.07	-.24
NOEFCADM/COMPETE	.17	-.02	-.11	-.04	-.07	-.23
PROBPROC/COMPETE	.26	.19	.09	.14	.08	.05
PORNCOMM/COMPETE	.26	-.15	-.17	-.14	-.15	-.16
STFCONFL/SIMSERV	.33@	.22	.29	.35@	.25	.04
NOEFCADM/SIMSERV	.25	.16	.24	.26	.21	.01
PROBPROC/SIMSERV	.35@	.09	.16	.16	.09	.03
PORNCOMM/SIMSERV	.19	.10	.13	.10	.09	.08
STFCONFL/RELY	.36@	-.06	.02	.04	-.01	-.10
NOEFCADM/RELY	.24	-.12	-.04	-.04	-.07	-.15
PROBPROC/RELY	.35@	.01	.09	.07	.03	.02
PORNCOMM/RELY	.19	.09	.11	.08	.08	.07

@ $p \leq .01$

*WRKMD =WORKMODE
*AUSPO =AUSPICES
*JBFRE =JOBFRE
*PROAM =PROAMRTO
*SIZST =SIZSTAFF

of the impact of SAMEMONY on internal competition/conflict in almost all instances.

However, in examining the environmental element, COMPETE, with internal competition/conflict, all the structural elements function as intervening elements. The weak but positive zero-order correlations are reduced to nearly zero in every instance. But, all the structural variables, with the exception of SIZSTAFF, have little effect on mitigating the impact of the environmental element, SIMSERV, upon internal competition/conflict processes. It is the size of the staff, in this case, that acts as the intervening variable. Finally, all the structural elements, again, play an intervening role in reducing the effect of the environmental element RELY on conflict and competition within the organization. Thus, the structural variables are able to lessen the impact of the dynamic elements upon competition and conflict within the organizations. These data support Proposition 4(a).

Proposition 4(b). Given a dynamic, changing environment the organizational structure lessens the impact of the environment on the exercise of vertical influence in the organizations.

I observed for Proposition 2(b) that the environmental elements that measure cooperation, viz., RELY, REFER, and SUPPORT, are negatively correlated with the exercise of influence in the agencies. The greater the cooperation among agencies, the less the exercise of vertical influence within the agencies. At the same time, I also noted that receiving money from the same sources, SAMEMONY, was an important environmental element in relation to the exercise of vertical influence within the agencies. The more frequently that agencies received money from the same sources, the greater the exercise of vertical,

top-down, influence especially on the part of the agency Board and of the upper level staff within the agencies.

Table 13 presents data demonstrating that WORKMODE, i.e., services rendered by the agencies, affects the moderately positive correlations between receiving money from the same sources and all the levels of vertical influence in the organization. WORKMODE serves as an intervening variable between the environmental element, in this case SAMEMONY, and the internal processes of influence.

TABLE 13.
COMPARISON OF ZERO-ORDER AND FIRST-ORDER CORRELATIONS FOR SELECTED ENVIRONMENT AND INTERNAL INFLUENCE VARIABLES

		First-Order Partials				
Variables	Zero-Order	WRKMD*	AUSPO*	JBFRE*	PROAM*	SIZST*
SAMEMONY/INFLBORD	.38@	.02	.15	.21	.16	.16
SAMEMONY/INFLAGHD	.16	-.05	.40@	.44@	.39@	.40@
SAMEMONY/INFLUPLV	.31@	-.08	-.09	-.02	-.07	-.07
SAMEMONY/INSLSUPR	.25	.16	-.36@	-.41@	-.30	-.30

@ $p \leq .01$

*WRKMD = WORKMODE
*AUSPO = AUSPICES
*JBFRE = JOBFRE
*PROAM = PROAMRTO
*SIZST = SIZSTAFF

At the same time, the remaining structural elements demonstrate an interesting pattern. AUSPICES, JOBFRE, PROAMRTO, and SIZSTAFF act as intervening variables between SAMEMONY/INFLBORD and SAMEMONY/INFLUPLV, while their effect upon the relationships SAMEMONY/INFLAGHD and SAMEMONY/INFLSUPR appear to be in the role of suppressor variables.

All five of the structural variables I have controlled on play

a role in affecting the relationship between the environmental element, SAMEMONY and the internal influence elements, but they do so in a variety of ways. Proposition 4(b) appears to be supported by these data.

Proposition 4(c). Given a dynamic, changing environment the organizational structure lessens the impact of the environment on internal processes regarding the exercise of power.

The data in Table 5 indicated that with very few exceptions almost all the environmental elements reduced the exercise of power by staff members within their own organizations. The environmental elements concerned with cooperation appeared to have the greater negative impact, so that the greater the cooperative interorganizational relations, the less the participation by staff members in internal decision making. On the other hand, the environmental elements concerned with competition did not appear to be related with internal decision-making at all, as the correlations were very near zero. I now turn to examine what effect the structural elements may have on these correlations.

In controlling for the structural variables (Table 14), the majority of the negligible relationships between SIMSERV, COMPETE, and SAMEMONY (i.e., the external competition elements) with the internal power variables become increasingly negative. In other words, the greater the number of agencies providing similar services (SIMSERV), the greater the reduction in decision-making by staff within the agencies in all the categories. In this instance, the structural variables suppress a great degree of influence by this particular environmental element on internal processes. Furthermore, the

TABLE 14.
COMPARISON OF ZERO-ORDER AND FIRST-ORDER CORRELATIONS
FOR SELECTED ENVIRONMENT AND INTERNAL POWER VARIABLES

		First-Order Partials				
Variables	Zero-Order	WRKMD*	AUSPO*	JBFRE*	PROAM*	SIZST*
SIMSERV/STAFFDEC	-.05	-.36@	-.41@	-.53@	-.50@	-.38@
SIMSERV/RESALLOC	-.05	-.62*	-.63*	-.69*	-.68*	-.60@
SIMSERV/CHNGPROG	-.09	-.41@	-.38@	-.45@	-.41@	-.42@
COMPETE/STAFFDEC	-.07	-.07	-.01	-.09	-.14	-.02
COMPETE/RESALLOC	-.03	-.31	-.30	-.33	-.37@	-.27
COMPETE/CHNGPROG	-.19	-.44@	-.45@	-.50@	-.51@	-.49@
SAMEMONY/STAFFDEC	-.05	-.06	-.21	-.26	-.03	-.19
SAMEMONY/RESALLOC	-.05	-.22	-.05	-.06	-.03	-.04
SAMEMONY/CHNGPROG	-.19	-.23	.19	.18	.21	.20
RELY/STAFFDEC	-.50*	-.38@	-.43@	-.49@	-.46@	-.38@
RELY/RESALLOC	-.37@	-.42@	-.49@	-.52@	-.51@	-.46@
RELY/CHNGPROG	-.61*	-.35@	-.33	-.36@	-.32	-.31
REFER/STAFFDEC	-.38@	-.48@	-.57@	-.57@	-.63*	-.53@
REFER/RESALLOC	-.39@	-.72*	-.71*	-.70*	-.75*	-.67*
REFER/CHNGPROG	-.48@	-.59*	-.49@	-.48@	-.50@	-.52@
SUPPORT/STAFFDEC	-.44@	-.08	.04	-.02	-.02	-.02
SUPPORT/RESALLOC	-.50*	-.20	-.17	-.19	-.19	-.16
SUPPORT/CHNGPROG	-.68*	-.12	-.15	-.17	-.18	-.19

@ $p \leq .01$ * $p \leq .001$

*WRKMD = WORKMODE
*AUSPO = AUSPICES
*JBFRE = JOBFRE
*PROAM = PROAMRTO
*SIZST = SIZSTAFF

structural variables operate in the same manner between the environmental element COMPETE and two internal power elements, viz., decisions concerning the allocation of resources (RESALLOC) and decisions concerning changing programs and services (CHNGPROG). However, the structural variables appear to have no effect on COMPETE and decision-making concerning staff hiring and promoting. Here, then, is an example of a true negligible relationship. Structure had no effect on this relationship.

The negligible correlations between the environmental element, receiving money from the same source, and the internal power elements change in a variety of ways when controlling for the structural elements. Some of the correlations remain the same; some increase their negative relationship; and some change their sign. In controlling for AUSPICES, JOBFRE, PROAMRTO, and SIZSTAFF, the negative correlations between SAMEMONY and CHNGPROG become positive. These structural variables act as suppressor variables of the true relationship, so that the more that agencies receive money from the same sources, the more the participation of the staff in decision-making about changing programs and services.

In examining the effect of the structural variables on the relationships between the cooperation elements, RELY, REFER, and SUPPORT, with the internal power elements, the structural elements again have a variety of effects upon the original relationships. The role of the organizational structure is especially apparent regarding the zero-order correlations between the support which agencies provide each other and the internal decision-making processes. The original negative correlations between SUPPORT and STAFFDEC, SUPPORT and RESALLOC,

and finally SUPPORT and CHNGPROG are greatly reduced in every instance. This demonstrates the intervention by the agencies' structure between the environmental interaction and the internal social process of decision-making. These data appear to support proposition 4(c) as stated.

Proposition 4(d). Given a dynamic, changing environment the organizational structure lessens the impact of the environment on internal cooperation and support.

In examining the relationships between the environmental elements and the internal processes of cooperation (Table 5), the more that agencies received cooperation and support from other agencies, the less there was cooperation from the Board, from the lower level staff, and from the higher level staff for doing one's job. Furthermore, the more that agencies ran programs for other agencies, the lower was the level of cooperation among staff within the agencies.

In controlling for the structural variables on these relationships in Table 15, the structural variables mitigate the effects of the external environment on the internal social processes with some interesting results. For example, the high negative correlation between the support of agencies for each others' programs and cooperation of the Board for doing one's job is reduced to virtually zero. This indicates that the structure variables are intervening between the environment and internal processes. The same holds true for SUPPORT and COOPLOLV - cooperation of lower level personnel for doing one's job. However, the weak positive zero-order correlation (.25) between SUPPORT and cooperation of own level personnel (COOPONLV) becomes weak and negative when controlling for all the structural variables. This indicates that the structural variables are buffering (or

TABLE 15.

COMPARISON OF ZERO-ORDER AND FIRST-ORDER CORRELATIONS FOR SELECTED ENVIRONMENT AND INTERNAL COOPERATION VARIABLES

		First-Order Partials				
Variables	Zero-Order	WRKMD*	AUSPO*	JBFRE*	PROAM*	SIZST*
SUPPORT/COOPBORD	-.61*	-.03	.05	-.06	-.07	-.07
SUPPORT/COOPLOLV	-.43@	.21	.01	.02	.03	-.02
SUPPORT/COOPONLV	.25	-.29	-.10	-.25	-.25	-.18
SUPPORT/COOPUPLV	-.50*	.43@	.13	.26	.26	.19
PROGFOR/COOPBORD	-.27	-.29	-.35@	-.60@	-.27	-.27
PROGFOR/COOPLOLV	-.36@	-.14	-.09	.03	-.10	-.15
PROGFOR/COOPONLV	-.21	-.17	-.28	-.26	-.17	-.08
PROGFOR/COOPUPLV	-.20	.13	.22	.26	.14	.04

* $p \leq .001$ @ $p \leq .01$

*WRKMD = WORKMODE
*AUSPO = AUSPICES
*JBFRE = JOBFRE
*PROAM = PROAMRTO
*SIZST = SIZSTAFF

lessening the impact) of the environmental element SUPPORT upon the cooperation of own level personnel for doing their job.

Lastly, the structural elements also affect the impact of running programs for other agencies upon cooperation at all levels. The structural variables WORKMODE, PROAMRTO, and SIZSTAFF appear to have less an effect than the other two. AUSPICES and JOBFRE demonstrate strong suppressor qualities between PROGFOR/COOPBORD and strong intervening qualities between PROGFOR/COOPLOLV. So that in these separate instances, these two structural variables demonstrate their importance for lessening the impact of the environmental elements SUPPORT and PROGFOR upon internal cooperation and support. Proposition 4(d) is supported.

Proposition 4(e). Given a dynamic, changing environment, the organizational structure lessens the impact on internal communication.

In examining Table 5, the general constraining effect of environmental variables upon different aspects of internal organizational communication was evident. The sharing of staff (SHARSTAF) and the running of programs for other agencies (PROGFOR) were two environmental elements, among others, that appeared problematic for the exercise of adequate communication within the agencies. Here, in Table 16, I examine the effect upon these environmental-process relationships by introducing the structural elements.

In controlling for the structural elements, the moderately negative zero-order correlations among the following variables:

- SHARSTAF/CONSUPRV;
- SHARSTAF/CONSUPRL;
- SHARSTAF/CONSOWNL

TABLE 16.

COMPARISON OF ZERO-ORDER AND FIRST-ORDER CORRELATIONS
FOR SELECTED ENVIRONMENT AND INTERNAL COMMUNICATION VARIABLES

		First-Order Partials				
Variables	Zero-Order	WRKMD*	AUSPO*	JBFRE*	PROAM*	SIZST*
SHARSTAF/CONSUPRV	-.20	-.03	-.08	-.02	-.09	-.01
SHARSTAF/CONSUPRL	-.19	-.08	-.13	-.11	-.17	-.15
SHARSTAF/CONSOWNL	-.48@	-.14	-.07	-.13	-.10	-.08
SHARSTAF/CONSSUBS	-.53*	.43@	.17	.22	.19	.10
SHARSTAF/SKINFOIN	-.30@	.62*	.25	.30	.29	.15
SHARSTAF/SKINFOOT	-.17	.27	.07	.07	.06	-.02
PROGFOR/CONSUPRV	-.13	-.40@	-.39@	-.31	-.39@	-.37@
PROGFOR/CONSUPRL	-.50@	-.38@	-.38@	-.38@	-.37@	-.39@
PROGFOR/CONSOWNL	-.29	-.31	-.41@	-.47@	-.31	-.32
PROGFOR/CONSSUBS	-.42@	.01	.04	.15	.02	-.01
PROGFOR/SKINFOIN	-.24	.07	.14	.19	.07	-.01
PROGFOR/SKINFOOT	-.05	.01	.03	.02	.03	-.01

* $p \leq .001$ @ $p \leq .01$

*WRKMD = WORKMODE
*AUSPO = AUSPICES
*JBFRE = JOBFRE
*PROAM = PROAMRTO
*SIZST = SIZSTAFF

are reduced to practically zero in every instance, (Table 16). This demonstrates that the structural elements are intervening here and mitigating the effects of the environmental relationships upon the internal communication processes. Secondly, holding the structural variables constant produces a different pattern of correlations between the environmental element SHARSTAF and the remaining three communication processes, viz., CONSSUBS, SKINFOIN, and SKINFOOT. The negative correlations all become high positive correlations, especially in light of the structural element WORKMODE. This indicates a spurious relationship between the elements in their zero-order correlations. The more that agencies share staff: a) the more consulting there is among subordinates; and, b) the more the seeking of job related information inside as well as outside the organization. Partialling out the structural elements here demonstrates how organizational structure affects the relationship between environment and internal processes.

A similar effect is produced among the elements related with internal communication and the environmental element "running programs for other agencies" (PROGFOR). The first three sets of correlations present a mixed picture, i.e., among PROGFOR and CONSUPRV, CONSUPRL, and CONSOWNL. The structural elements appear as suppressor variables in the first instance; as intervening variables in the second; and appear to have little or no effect in the third. Similarly, the structural variables act as intervening variables for PROGFOR/CONSSUBS and PROGFOR/SKINFOIN but appear to have no effect at all on PROGFOR/SKINFOOT. This indicates that running programs for other agencies appears to have no effect on consulting subordinates nor seeking job related information, whether inside or outside the organization.

However, the more that agencies run programs for each other, the less the consulting about job related problems and procedures takes place with supervisors and upper level staff and among own level personnel. It is difficult to support Proposition 4(e) with these data. Moreover, the problems encountered here in interpreting the data are similar to the problems in interpreting the data of Proposition 2(e). Internal communication is a much more involved subject than any of the other elements I have been dealing with in this study.

This concludes the examination of specific structural variables and their impact on the relationships among environmental elements and internal process elements. The basic outline of the Environment-Structure-Process Model, as herein presented, has been substantiated by the data. Moreover, the conclusions demonstrate how structure intervenes between the organizational environment and the internal social processes. Working with these large numbers of elements, while at times confusing, permits a greater sensitivity to the interaction effects that the elements have on each other.

The data indicate that there is no one predominant structural variable influencing the relationships among environmental elements and internal social processes. Each of the structural elements often have different effects upon the "external environment-internal process" relationships. However, the overall indications are that: 1) the organizational structure does protect against excessive internal competition and conflict as occasioned by environmental competitive elements; and, 2) structure protects the staffs' internal exercise of power and cooperative relations against excessive manipulation by external competition and cooperation.

SUMMARY AND IMPLICATIONS

The model I have been testing states that environment, defined as organizational interaction, produces effects on the internal social processes and these effects are either mitigated or strengthened by the organizational structure. The model appears substantiated by the present examination of the data on social service agencies. The agencies appear to be very susceptible to environmental influences, if only because of the intangible items that comprise them. These items are the internal work processes, i.e., technology or the application of knowledge; the material worked upon, viz., clients in various stages and degrees of need; and, finally, the goal-oriented behavior of the agency personnel. The mutability and the transitivity of these elements may contribute to their being very susceptible to influences from outside the agencies, especially if needed resources vary in their availability.

I have tried to indicate, at various points in the body of the dissertation, how the empirical findings could be related to previous theoretical and applied treatises concerning complex organization. I will try to emphasize the principle ones in this summary. I also feel it is quite obvious that the information contained here is pertinent to present-day concerns of practitioners and theoreticians in the field of social organization. The following is a brief review of the major concerns in this dissertation.

In the Introduction, I indicated that extrapolating principles and concepts from the social psychological level and elevating them to the next highest analytical level for organizational studies could be a viable approach to understanding complex organizations. This study provides evidence that:

a) organizations are responsive to external, i.e., environmental, factors;

b) organizations must choose among a variety of stimuli in order to maintain a steady state of dynamic equilibrium; and,

c) organizatons do require a balancing of external and internal forces, such as we find necessary at the individual, psychological level.

The formulation and further refinement of these concepts and their measurements at the organizational level will require time. However, I feel that this dissertation indicates where to start, i.e., recognizing which environmental, structural, and processual elements are pertinent for an organization's survival; secondly, determining which relationships among these elements are loosely or tightly coupled; and, thirdly, viewing complex organizations as social actors.

Secondly, I stated in the Introduction that in terms of problem-oriented applications, this study addresses the major issue of how "structure" affects interpersonal behavior in organizations. Structure constrains choices. The more we are aware of how this comes about, the more time we may have to structure our own choices. The dissertation, as written, examines how structure mediates environmental and internal process variables and appears to ignore the variable "human".

But, I have not forgotten that processes are performed by individuals and that interorganizational relations are also performed by persons. I have deliberately kept the individual in the background for the purpose of testing my model because examining the psychological level is one of the steps for demonstrating the interrelations between and among elements that are environmental for each other.

Thirdly, the open systems, environment-ecological approach as espoused in this paper is a viable way of examining relationships among and within organizations. The application of recent ideas, such as "loose coupling", "multiple relations", and "conceptual disaggregation", will foster the utilization of the ecological model. Explicit throughout this paper is the incorporation of these ideas in examining the data. Hawley's notions on the human community only need to be operationalized for these more recent concepts to become part of our normal vocabulary.

Fourthly, the broad, overarching literature review demonstrated an inter-connectedness among theories and studies separated by time and foci of attention. Even though we speak of separate schools of thought concerning organizations, we know they are compatible. And just as Barnard and Weber subsumed each other's major concern, so Argyris and Perrow (and others they represent) do today.

Lastly, I recognize that the use of correlations for examining relationships among variables does not imply causality. However, for this exploratory study, demonstrating "loose coupling" and "multiple relations", the use of this particular statistic is justified. Moreover, the small number of cases in this study and the assumption of interval level data do not allow for too rigorous statistical measures.

Even though my E-S-P Model makes assumptions of causality, i.e., from environment through structure to internal processes, there is a feedback loop operating, i.e., the internal processes affect the environment in turn. This also awaits to be tested.

Findings

At this point, it is obvious that the propositions, which have guided the examination of the data, have been very pertinent. Although not all have been directly substantiated, they did guide me through a potentially bewildering mass of data.

Organizational environment was strictly defined in ecological or behavioral terms, such that interorganizational relations became the operational definition of environment. As such, the discussion of the environmental variables indicated that social service agencies exist in an atmosphere of competitive cooperation. It may very well be that the survival of any one agency requires that existence of others that provide similar services, seek money from the same sources, and compete for the same resources in the community. What appears to occur is that agencies become mutually supportive of each other in order to maintain conditions that allow for their own survival. Some of these necessary conditions are: clients, good reputation, retention of personnel, high esteem of regulatory agencies and of benefactors.

The idea of competitive cooperation was linked to Simmel's contention that conflict and cooperation are necessary parts of every social interaction. Hawley's ideas of commensalistic relations among like species was also incorporated into the discussion. The data also provided support for Litwak and Hylton's (1962) observation that

conflict among organizations is a fact.

In discussing the various social processes within the agencies it was obvious that influence, cooperation, and consulting, as "categories" of internal processes, have different degrees of impact upon each other and upon internal competitive relationships. An apparent "balance" or "consistency" is maintained among the elements which comprise these categories. One effect of such internal activity is that in-group and out-group relationships emerge among the agency personnel, irregardless of any external influence. These data were interpreted as a variation of Blau's (1955) findings on colleague consultation in the two government agencies he studied.

Further observations on the internal organizational processes of conflict and competition with cooperation revealed some relation with Merton's observations on dysfunctions of bureaucracies. The present data could be interpreted as demonstrating the "entrenching" of own level interests within the agencies.

In turning to the effect of the environmental variables on the internal social processes, I noted that the environment had a generally constraining effect upon virtually all the internal processes, except those dealing with conflict and competition within the agencies. The findings upheld the general intent of the proposition regarding the relation between environment and internal processes, but most of the related minor propositions were not sustained and were reformulated on the basis of the data. In general, the greater the degree of environmental activities impinging on the organizations, the greater was the degree of competition and conflict within the agencies; the less the amount of overall cooperation and support; the less the frequency of

communication; the less the participation in decision-making (power); and the less the exertion of influence in the agencies.

Finally, in partialling out the effects of selected structural variables, in accord with the literature and the correlations among the data themselves, I noted that the general pattern of inverse relationships between the environment and the internal processes were maintained. However, in many instances the magnitude of the general correlations were changed and, in a few cases, the signs were reversed. The structural elements I controlled on were:

a) auspices of the agencies;

b) technology, or how the agency handled their clients;

c) size of the agencies, measured by the number of staff;

d) ratio of professionals to administrators; and,

e) degree of job freedom for making decisions on day to day operations.

The data indicate that environment does have an impact on what occurs within organizations. But, more importantly, the data substantiate the Environment-Structure-Process Model presented for consideration. Structural variables protect the internal organizational processes from excessive environmental influence.

Implications

One of the general criticisms of the open systems approach, or the general systems approach, to the study of social phenomena is the apparent difficulty in operationalizing the concepts as presented. For example, how does one treat "negative entropy" in social service agencies or any other organization which is "non-profit" regarding the "importing

of more energy from the environment than it expends"? Just what kinds of "energy" do complex formal organizations need? Secondly, the concept of "equifinality" has been a stumbling block for organizational studies attempting to incorporate the open systems perspective. If "equifinality" means that a system can reach its goal "from differing initial conditions" and "by a variety of paths", what, then, constitutes "goal-oriented" behavior? Is it everything or anything?

These are a few of the conceptual problems facing the use of general systems theory in organizational sociology. This dissertation does not pretend to answer the above questions. Instead, it serves to indicate that Negandhi's exhortation to think in terms of "multiple causation" may be the key for the application of the open systems perspective in the study of organizations. As I suggested in the literature review, perhaps organizational studies use such broadly defined variables mainly because of the inability to think in terms of and measure multiple cause-effect relations. A contributing factor may be the ubiquitous computer which allows for a "factor-cluster-analysis" view of the world.

I have not dealt with "multiple causation" in this study, but rather with what I have called "multiple relations". This idea is part of the contribution of this dissertation. By focusing first on multiple relations, we may become accustomed to think in terms of multiple causation.

Another contribution is operationalizing the idea of "loosely coupled" elements and that of "conceptual disaggregation". "Loose coupling" allows for some application of "equifinality" as a viable

concept in organizational studies, insofar as it helps maintain a view of a stable system (the organization) reacting to and with a dynamic, changing environment. Furthermore, the application of the concept of "conceptual disaggregation", i.e., taking apart the constituent parts of our factors and clusters and examining them for their aptness and applicability to what we are studying, also lends itself to studying organizations as open systems. We can better recognize the organizational elements as they respond to each other and contribute to the whole system through interacting with the environmental elements.

Practically speaking, the data demonstrate that competition and cooperation are expected elements for any social service agency. The importance of recognizing this commensalistic type of relationship is that any continued emphasis upon the regionalization of health and welfare agencies must leave some leeway for competition if the social service agencies are to survive in their present form. Litwak and Hylton recognized this a long time ago. If not, regional committees and regulatory agencies may find themselves the targets of the agencies' frustrated and misplaced competition.

Secondly, interorganizational cooperation may be the most important environmental variable. As demonstrated in the data for this study, the elements which comprise cooperation, viz., RELY, REFER, and SUPPORT, appear to inhibit the exercises of options within organizations in a variety of ways. For example, it reduced the exercise of power among staff; it restricted the flow of communication, influence and internal cooperation; and it heightened the degree of competition and conflict among staff members. The call for more cooperation among agencies may be a siren's call.

Thirdly, communication within the agencies appears to have some characteristics which make it very difficult to handle. Perhaps the measures of communication, i.e.,

a) consulting about problems with supervisors and upper level staff;

b) consulting with own level personnel and lower level personnel about procedures and problems; and,

c) seeking information and help for doing one's job,

may be at fault here. But if they are not, then internal communication may be the most important variable for organizational survival.

Lastly, together with psychological characteristics and the social milieux, which organization incumbents bring with them to the job, agency personnel are further subjected to broader structural concerns. These arise not only from within their agencies but also from without. These broader concerns appear to affect the work processes as much as individual characteristics do.

Those in charge of coordinating agency efforts in supplying needed services to the public are faced with a multi-faceted task. Not only must they be concerned with the provision of adequate services to clientele but they must also be aware of the effects of agency interaction. This awareness is especially necessary since agencies interact in the competition for needed resources and in the cooperation provided for each other's programs. The non-awareness of such inter-agency relations can only contribute to a waste of resources and increased inefficiency.

APPENDICES

APPENDIX A

LIST OF VARIABLES USED IN THE STUDY AND DEFINITIONS

Independent Variables

SIMSERV	which agencies provide services similar to yours.
RELY	which agencies do you rely upon to deliver your own programs to clients.
REFER	which agencies do you refer unserved clients to.
SUPPORT	which agencies provide you with cooperation and support for your programs.
COMPETE	which agencies compete with you for the resources in this community.
JNTPLAN	with which agencies do you do joint planning.
COMUNCTE	with which agencies do you exchange opinion, information, and ideas.
SHARFACL	with which agencies do you share facilities for serving your clients.
PROGFOR	which agencies do you run programs for.
SEEKFUND	with which agencies do you jointly seek funds.
SHARSTAF	with which agencies do you share staff.
RUNPROJ	with which agencies do you run programs.
SAMEMONY	which agencies are most likely to get money from the same sources as you do.

Intervening Variables

JOBDES	written job description for your position.
MANUAL	staff or policy manual which includes written regulations and procedures.
USEMAN	how useful is the manual for solving everyday problems.
JOBFRE	how much freedom do you have to use your own judgment in day to day operations.

EXTNREG extent to which written regulations and procedures are followed in the agency.

PROAMRTO professional administrative ratio.

SIZSTAFF number of full time staff positions.

AUSPICES private sponsorship or public sponsorship

AGENAGE established before or after 1964

WORKMODE in terms of services rendered: either distributive or treatment.

CONFLICT sum of mean scores of agency heads' perception of differences of opinion among Board Members and among Staff. For list of items, see questions 27 and 28 in Agency Head Questionnaire, Appendix D.

Dependent Variables

CONSUPRV consult with supervisor about job related problems.

CONSUPRL consult with upper level staff about job related problems.

CONSOWNL consult with own level staff about agency procedures.

CONSSUBS consult with subordinate level staff about agency procedures and problems.

SKINFOIN seek job related information from someone within the agency.

SKINFOOT seek job related information from someone in another agency.

STAFFDEC participate in decisions about staff hiring and promotion.

RESALLOC participate in decisions about resource allocation.

CHNGPROG participate in decisions about changing services or programs.

INFLBORD Board influence on one's job.

INFLAGHD Agency director's influence on one's job.

INFLLOLV lower level staff influence on one's job.

INFLONVL	own level staff's influence on one's job.
INFLUPLV	upper level officials' influence on one's job.
INFLSUBS	direct subordinate's influence on one's job.
INFLSUPR	immediate superior's influence on one's job.
COOPBORD	board cooperation and support for doing one's job.
COOPLOLV	lower level staff's cooperation for doing one's job.
COOPONLV	own level staff cooperation for doing one's job.
COOPUPLV	upper level staff cooperation for doing one's job.
STFCONFL	conflict over agency goals among staff creating a problem for doing one's job.
NOEFCADM	lack of effective administration creating a problem for doing one's job.
PROBPROC	office practices and procedures creating a problem for doing one's job.
PORNCOMM	poor communication among staff members creating a problem for doing one's job.

APPENDIX B

ZERO-ORDER CORRELATIONS FOR PROCESS AND STRUCTURE VARIABLES

	JOBDES	MANUAL	USEMAN	JOBFRE	WRITREG	PROAMRTO	SIZSTAFF	AUSPICES	AGENAGE	WORKMODE	CONFLICT
STAFFDEC	.43@	.21	-.04	.05	-.09	.04	.10	.03	-.02	-.01	.32@
RESALLOC	.22	.34@	.32@	.25@	.34@	-.19	-.06	-.06	.19	-.07	.09
CHNGPROG	.28@	.25@	.08	.08	.13	-.04	-.06	-.18	.06	.002	.19
CONSUPRV	.39@	.22	-.08	-.18	.12	.26*	.04	-.25	.21	-.14	.10
CONSUPRL	.29@	-.14	-.07	.17	-.28*	.10	.02	-.17	-.07	-.22	-.14
CONSOWNL	.18	.24	.04	.09	.18	.20	-.04	.02	.10	.25	.25@
CONSSUBS	-.04	.34@	.30@	.58*	.20	-.16	-.11	-.02	.35@	-.10	.14
SKINFOIN	.60*	.09	-.28@	-.07	-.21	.46@	.07	.19	-.04	.16	.21
SKINFOOT	.69*	.31@	-.24	-.13	-.19	.58@	.06	.32@	-.29@	.40@	.25
INFLBORD	.59*	.17	-.24	-.48*	.01	.40@	.24	.22	-.02	.22	.43@
INFLAGHD	.22	-.30@	-.24	-.22	-.25@	.16	-.01	-.13	.13	.01	.05
INFLLOLV	.46*	.34@	-.43@	-.03	-.20	.40@	.07	.18	.05	.20	.32@
INFLONLV	.48*	.19	-.34@	-.13	-.13	.43@	.14	.21	-.04	.15	.29@
INFLUPLV	.25@	-.18	-.30@	-.11	-.21	.15	.12	.13	.16	.13	.29@
INFLSUBS	.06	-.04	-.10	.35@	-.36@	-.07	-.02	-.04	.17	-.07	.04
INFLSUPR	.18	-.14	-.27@	-.09	-.21	.20	.09	.01	.18	.17	.17
COOPBORD	-.20	.01	.51*	.32@	.41@	-.30@	-.02	-.25	.37@	-.34@	-.24
COOPLOLV	.08	.51*	.37@	.25	.44@	.19	.06	-.04	.32@	-.03	.15
COOPONLV	.64*	.13	-.53*	-.25	-.26@	.55*	.21	.22	-.06	.31@	.37@
COOPUPLV	-.35@	.05	.20	.47*	.12	-.11	-.16	-.45@	.45@	-.13	-.17
STFCONFL	.55*	.06	-.48*	-.53*	-.20	.44@	.25	.46*	-.40@	.52*	.36@
NOEFCADM	.38@	.07	-.50*	-.47*	-.27@	.35@	.34@	.46*	-.25	.50*	.45*
PROBPROC	.47*	.03	-.50*	-.54*	-.17	.35@	.25	.41@	-.24	.40@	.50*
PORNCOMM	.43@	.08	-.21	-.58*	-.09	.38@	.23	.23	-.23	.34@	.30@

* $p \leq .001$ @ $p \leq .01$

APPENDIX C

ZERO-ORDER CORRELATIONS FOR ENVIRONMENT AND STRUCTURE VARIABLES

	JOBDES	MANUAL	USEMAN	JOBFRE	WRITREG	PROAMRTO	SIZSTAFF	AUSPICES	AGENAGE	WORKMODE	CONFLICT
SIMSERV	.26@	-.05	-.02	-.27@	.21	-.10	.54*	.22	.14	nc	.36@
COMPETE	.11	-.29@	-.12	-.30@	-.05	-.20	.21	.22	-.37@	.09	-.11
SAMEMONY	.24	.10	.09	-.09	.14	-.03	.58*	.35@	.06	-.03	.24
RELY	.28@	.25	.07	-.26	.30@	.15	.53*	.45*	.15	.12	.25@
REFER	.35@	.18	.05	-.33@	.20	.15	.26@	.16	.14	.09	.03
SUPPORT	.37@	.27	-.11	-.31@	.09	.37	.51*	.44@	.22	.13	.28@
COMMUNCTE	.49@	.19	.18	-.12	-.08	-.01	.50*	.39*	-.25	.07	.10
PROGFOR	-.04	.38@	.17	-.38@	.69*	.01	.42@	.28	.28	-.16	.21
RUNPROJ	.55*	.14	.34@	-.13	.20	-.36@	.35@	.39@	-.05	-.09	.01
JNTPLAN	.34@	-.16	.29	-.14	.15	-.17	-.10	.30	-.14	.24	-.15
SEEKFUND	.26	.32	.38@	-.27	.46@	.08	.33@	.22	.17	nc	.04
SHARFACL	.22	.26	.24	-.22	.19	.04	.40@	.01	.07	.10	-.02
SHARSTAF	.15	.12	.29@	-.37@	.27	.23	.53*	.18	.01	.14	.09

*$p \leq .001$ @$p \leq .01$ nc = not computable

APPENDIX D

AGENCY HEAD QUESTIONNAIRE

INTRODUCTION: I AM _____ FROM THE DEPARTMENT OF SOCIOLOGY. WE ARE CONDUCTING A STUDY OF VOLUNTARY AND PUBLIC AGENCIES, THE WAY THEY DELIVER HUMAN SERVICES, THE PROBLEMS THEY FACE IN COORDINATING PROGRAMS, THE RELATIONSHIP BETWEEN THE PUBLIC AND PRIVATE SECTORS. WE HAVE JUST FINISHED A LARGE STUDY OF GIVERS TO UNITED WAY AND NOW WE ARE GOING INTO THE SECOND PHASE OF THE STUDY THAT DEALS WITH THE AGENCIES, THEIR BOARD AND STAFFS. IT'S IMPORTANT TO KNOW HOW DIRECTORS OF AGENCIES PERCEIVE THE PROBLEMS OF THE COMMUNITY AND THE DIFFERENT WAYS WE CAN HELP SOLVE THEM. OUR INTERVIEW WILL TAKE ABOUT AN HOUR AND THEN I'LL LEAVE A SHORT SET OF QUESTIONS THAT YOU CAN MAIL BACK TO US. I ASSURE YOU ALL YOUR ANSWERS WILL BE KEPT STRICTLY CONFIDENTIAL AND NO ONE OTHER THAN OUR SMALL SURVEY STAFF WILL EVER SEE THESE QUESTIONNAIRES. ALL WRITE-UPS AND REPORTS WILL GIVE ONLY GROUP DATA AND NO PERSON OR ORGANIZATION WILL EVER BE IDENTIFIED BY NAME. YOU WILL RECEIVE A COPY OF OUR FINAL REPORT WHEN IT IS COMPLETED.

1. What are the major services offered by this agency? WRITE IN.

   1_____

   2_____

   3_____

4_____

5_____

2. What other services do clients coming to your agency require that you cannot provide? WRITE IN. IF R REFERS TO OTHER AGENCIES OR WHAT IS DONE, TELL HIM WE'LL COVER THAT LATER.

1_____

2_____

3_____

4_____

5_____

3. Do you refer these unserved clients to other agencies? CHECK ONE

_____Yes _____No (Go to question 4)

3a. To which of these agencies do you refer most of these clients? HAND CARD #1 OF AGENCIES TO RESPONDENT. FOR EACH AGENCY NAMED, WRITE DOWN LETTER.

1_____ 2_____ 3_____ 4_____ 5_____

4. Looking at this list of agencies in this community, I am going to ask you a number of questions about different kinds of relationships your agency may have with others. For each question, please give me the names, if any, of the agencies that best answer the question. If the question is inappropriate for your agency, please tell me. In order to save some time, look over the entire list of agencies first and then tell me the top five agencies involved in the relationship. Now, which agencies provide services that are <u>similar</u> to those provided by your agency? WRITE LETTERS AND A FEW IDENTIFYING WORDS OF AGENCIES NAMED.

1_____ 2_____ 3_____ 4_____ 5_____

5. Now, please tell me the agencies upon which you rely to provide services that help you deliver your own programs to clients. WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

6. Which agencies make referrals to your agency? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

7. Which agencies provide you with cooperation and support for your programs? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

8. Which agencies compete with you for the resources in this community? WRITE IN LETTERS AND NAMES.

1 _____ 2_____ 3_____ 4_____ 5_____

9. With which of these agencies do you do joint planning? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

10. With which agencies do you exchange opinions, information, and ideas? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

11. With which agencies do you share facilities for serving your clients? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

12. Which agencies do you run programs for? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

13. With which agencies do you jointly seek funds? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

14. Which agencies' good opinion of your work is important to you?

1_____ 2_____ 3_____ 4_____ 5_____

15. Which agencies have influence over what goes on in your agency? WRITE IN LETTERS AND NAMES?

1_____ 2_____ 3_____ 4_____ 5_____

16. Which of these agencies serve with you on community committees? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

17. With which of these agencies do you share staff? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

18. With which of these agencies do you run programs? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

19. Which of these agencies are most likely to get money from the same sources as you do? WRITE IN LETTERS AND NAMES.

1_____ 2_____ 3_____ 4_____ 5_____

20. Does your agency have a Board or Commission? CHECK ONE

_____ Yes _____ No (go to 21)

_____ Don't Know (go to 21)

20a IF YES -- what is it's name? _____

20b IF YES -- are there any agencies on the list with board members also on your Board or Commission? CHECK ONE

_____ Yes

_____ No (go to 21)

_____ Don't Know (go to 21)

20c IF YES -- which ones?

1_____ 2_____ 3_____ 4_____ 5_____

TAKE LIST # 1 BACK.

21. About what proportion of your clients are referred from other agencies in the local community?

_____% WRITE IN PERCENT.

22. And from agencies out side the community? _____% WRITE IN PERCENT.

23. From public agencies? _____% WRITE IN PERCENT.

24. And from voluntary agencies? _____% WRITE IN PERCENT.

25. About what percent are walk-ins? _____% WRITE IN PERCENT.

26. And about what percent are referrals from private practitioners?

_____% WRITE IN PERCENT

27. To what extent are there differences of opinion among your board (Commission) members over each of the following? CHECK ONE ON EACH LINE.

	very great extent	great extent	some extent	slight extent	to no extent
a. The kinds of services provided	____	____	____	____	____
b. The amount of services provided	____	____	____	____	____
c. The kind of professional staff employed	____	____	____	____	____
d. The quality of professional staff employed	____	____	____	____	____
e. The way money is raised	____	____	____	____	____
f. The way salary increments are determined	____	____	____	____	____
g. The way promotions are determined	____	____	____	____	____
h. The number of clients served	____	____	____	____	____
i. The kinds of clients served	____	____	____	____	____
j. The way services with other agencies are corrdinated	____	____	____	____	____
k. The way money for services is allocated	____	____	____	____	____

	very great extent	great extent	some extent	slight extent	to no extent
l. The way the agency is related to the business community	____	____	____	____	____
m. The way the agency is related to the professional community	____	____	____	____	____
n. Office procedures	____	____	____	____	____
o. Other_____					
_____ (WRITE IN)	____	____	____	____	____

28. To what extent are there differences of opinion among your professional staff over each of the following? CHECK ONE IN EACH LINE.

	very great extent	great extent	some extent	slight extent	to no extent
a. The kinds of services provided	____	____	____	____	____
b. The amount of services provided	____	____	____	____	____
c. The kind of professional staff employed	____	____	____	____	____
d. The quality of professional staff employed	____	____	____	____	____
e. The way money is raised	____	____	____	____	____
f. The way salary increments are determined	____	____	____	____	____
g. The way promotions are determined	____	____	____	____	____
h. The number of clients served	____	____	____	____	____
i. The kinds of clients served	____	____	____	____	____
j. The way services with other agencies are coordinated	____	____	____	____	____

	very great extent	great extent	some extent	slight extent	to no extent
k. The way money for services is allocated	____	____	____	____	____
l. The way the agency is related to the business community	____	____	____	____	____
m. The way the agency is related to the professional community	____	____	____	____	____
n. Office procedures	____	____	____	____	____
o. Other_____					
_____ (WRITE IN)	____	____	____	____	____

APPENDIX E

AGENCY STAFF STUDY

1. What is your present job title? _____

   Please describe your job_____

2. How long have you worked here? ____years or ____months

3. How long have you been in your current job? ____years or ____months

4. Do you have any subordinates? CHECK ONE ____yes ____no (go to question 5)

   IF YES: 4a. How many? _____

5. Are you a member of any professional organizations? CHECK ONE

   ____yes ____no (go to question 6)

   IF YES: 5a. How many? _____

   5b. How many times in the past year have you attended professional meetings and conferences? _____

   5c. Within the past three years, have you held any office or been chairman of any committees of a professional organization? ____yes ____no

6. Do you serve on any committees or planning groups within your agency? CHECK ONE

   ____yes ____no (go to question 7)

   IF YES: 6a. How many? _____

   6b. Approximately how much time per month does this require? _____hours

7. Do you serve on any committees or planning groups with people from other agencies and organizations? CHECK ONE

____yes ____no (go to question 8)

IF YES: 7a. How many committees or groups? _____

7b. Approximately how much time per month does this require? _____ hours

8. Is there a written job description for your position? CHECK ONE

____yes ____no ____uncertain

8a. Is there a staff manual or policy manual which includes regulations and procedures which apply to your position? CHECK ONE

____yes (go to question 8b) ____no (go to question 9)

____uncertain (go to question 9)

IF YES: 8b. How useful is the manual in solving every day problems? CHECK ONE

____Very greatly useful
____Greatly useful
____Somewhat useful
____Slightly useful
____Not useful at all

9. On your job, how much freedom do you have to use your own judgment in day to day operations? CHECK ONE

____Very great amount
____Great amount
____Some
____Slight amount
____None at all

10. To what extent are written regulations and procedures followed in your agency or organization? CHECK ONE

____Very great extent
____Great extent
____Some extent
____Slight extent
____No extent at all

11. In your job, how frequently do you do each of the following? CHECK ONE ON EACH LINE

	Rarely or Never	Some-time	Quite Often	Almost Always
a. Consult with your supervisor about problems which come up in your job	____	____	____	____
b. Consult with upper level agency staff about problems which come up in your job	____	____	____	____
c. Participate in decisions about staff (hiring, promotion, etc.)	____	____	____	____
d. Participate in decisions about allocation of resources (money, time, services, etc.)	____	____	____	____
e. Participate in decisions about changing or adding services or programs	____	____	____	____
f. Consult with people at your own level about agency procedures and problems	____	____	____	____
g. Consult with people at a subordinate level about agency procedures and problems	____	____	____	____
h. Seek information and help in doing your job from someone within your agency	____	____	____	____
i. Seek information and help in doing your job from someone in another organization	____	____	____	____

12a. What major services or programs do people come to your agency need? WRITE IN

_____

_____

b. From the above, please list the major services applicants or clients need but which are not provided within your agency? WRITE IN

_____

_____

c. Please estimate the proportion of people coming for services or programs who are referred to another organization or agency.

_____%

13. In general, how similar are people who come to your agency or organization for services and programs in the following ways: CHECK ONE ON EACH LINE

	Very Similar	Somewhat Similar	Not at all Similar
In age	____	____	____
In sex	____	____	____
In race	____	____	____
In income level	____	____	____
In the services and programs they want	____	____	____
In length of time they use your agency	____	____	____

14. To what extent does each of the following influence what goes on in your job? CHECK ONE ON EACH LINE

	Very Great Extent	Great Extent	Some Extent	Slight Extent	No Extent
a. Agency rules and regulations	____	____	____	____	____
b. Board or Commission of this agency	____	____	____	____	____
c. Capital Area United Way	____	____	____	____	____
d. Clients	____	____	____	____	____

	Very Great Extent	Great Extent	Some Extent	Slight Extent	No Extent
e. Community groups, i.e., church, labor, local business, minority	____	____	____	____	____
f. Director of this agency	____	____	____	____	____
g. Financial resources	____	____	____	____	____
h. Funding organizations	____	____	____	____	____
i. General public	____	____	____	____	____
j. Government officials and politicans	____	____	____	____	____
k. Local, state or federal laws	____	____	____	____	____
l. Lower level staff of agency	____	____	____	____	____
m. Need for new or additional services and programs	____	____	____	____	____
n. Other persons at your level in this agency	____	____	____	____	____
o. Professional standards	____	____	____	____	____
p. Requirements of governmental funding agencies or organizations	____	____	____	____	____
q. Staff of other agencies and organizations	____	____	____	____	____
r. Upper level officials in this agency	____	____	____	____	____
s. You, yourself	____	____	____	____	____
t. Your direct subordinates	____	____	____	____	____
u. Your immediate superior	____	____	____	____	____

15. In your job, to what extent do you exchange information, opinions and ideas with the following groups and persons? CHECK ONE ON EACH LINE

	Very Great Extent	Great Extent	Some Extent	Slight Extent	No Extent
a. Clients	____	____	____	____	____
b. Government officials and politicians	____	____	____	____	____
c. Lower level staff in your organization	____	____	____	____	____
d. Persons at your level in your organization	____	____	____	____	____
e. Professionals outside your agency	____	____	____	____	____
f. Representatives of community groups, i.e., church, labor, local business, minority, etc.	____	____	____	____	____
g. Staff from funding organizations	____	____	____	____	____
h. Staff from other agencies and organizations	____	____	____	____	____
i. Volunteers	____	____	____	____	____

16. To what extent do you get cooperation and support for doing your job from each of the following groups or persons? CHECK ONE ON EACH LINE

	Very Great Extent	Great Extent	Some Extent	Slight Extent	No Extent
a. Board or Commission of your organizations	____	____	____	____	____
b. Clients	____	____	____	____	____
c. Government officials and politicians	____	____	____	____	____

	Very Great Extent	Great Extent	Some Extent	Slight Extent	No Extent
d. Lower level staff in your organization	____	____	____	____	____
e. Persons at your level in your organization	____	____	____	____	____
f. Professionals outside your agency	____	____	____	____	____
g. Representatives of community groups, i.e., church, labor, local business, minority, etc.	____	____	____	____	____
h. Staff from funding organizations	____	____	____	____	____
i. Staff from other agencies and organizations	____	____	____	____	____
j. Upper level staff in your organization	____	____	____	____	____
k. Volunteers	____	____	____	____	____

17. In doing your job, how much of a problem is each of the following to you? CHECK ONE IN EACH LINE

	Very Great Problem	Great Problem	Somewhat of a Problem	Slight Problem	No Problem
a. Attitudes of general public	____	____	____	____	____
b. Conflict over agency goals among staff	____	____	____	____	____
c. Duplication of the services of your agency	____	____	____	____	____
d. Inadequate referral sources	____	____	____	____	____
e. Insufficient staff	____	____	____	____	____

	Very Great Problem	Great Problem	Somewhat of a Problem	Slight Problem	No Problem
f. Lack of cooperation with other organizations	____	____	____	____	____
g. Lack of effective administration	____	____	____	____	____
h. Lack of support from agency Board or Commission	____	____	____	____	____
i. Limited range of services in community to meet people's needs	____	____	____	____	____
j. Limited range of services provided by your agency	____	____	____	____	____
k. Insufficient funds	____	____	____	____	____
l. Office practices and procedures	____	____	____	____	____
m. Poor communication with other staff members	____	____	____	____	____
n. Poor community relations	____	____	____	____	____
o. Poor quality of staff	____	____	____	____	____
p. Requirements of funding organizations and sources	____	____	____	____	____
q. Way money is allocated	____	____	____	____	____
r. Way services with other organizations are coordinated	____	____	____	____	____
s. Other, please specify _____	____	____	____	____	____

18. From your job perspective, how much competition is there between your agency's program and other organizations for the following resources? CHECK ONE ON EACH LINE

	Very Great Competition	Great Competition	Some Competition	Slight Competition	No Competition At All
a. Clients	____	____	____	____	____
b. Government funds	____	____	____	____	____
c. Money from private sources (gifts, grants etc.)	____	____	____	____	____
d. Money from United Way	____	____	____	____	____
e. Prestige in the community	____	____	____	____	____
f. Professional staff	____	____	____	____	____
g. Technical assistance and consultation	____	____	____	____	____
h. Other, please specify _____	____	____	____	____	____

19. How much would you support each of the following? CHECK ONE ON EACH LINE

	Very Great Support	Great Support	Some Support	Slight Support	No Support
a. Merger or consolidation of public agencies at the state level	____	____	____	____	____
b. More influence on regional planning by state agencies or governmental officials	____	____	____	____	____
c. Increased responsibility for planning for human services at the regional level	____	____	____	____	____

	Very Great Support	Great Support	Some Support	Slight Support	No Support
d. An expanded role for voluntary agencies in planning for publically financed services	____	____	____	____	____
e. Merger and/or consolidation of local public agencies	____	____	____	____	____
f. Merger and/or consolidation of local voluntary agencies	____	____	____	____	____
g. An active advocacy role for social agencies	____	____	____	____	____

20. From the perspective of your job, how much does the United Way (Community Chest) help you with each of the following? CHECK ONE IN EACH LINE

	Very Great Help	Great Help	Some Help	Slight Help	Does Not Help
a. Coordinating services with other agencies	____	____	____	____	____
b. Delivery of services and programs	____	____	____	____	____
c. Developing new services and programs	____	____	____	____	____
d. Community relations	____	____	____	____	____
e. Guidelines for services and programs	____	____	____	____	____
f. Increasing agency budget or allocations	____	____	____	____	____
g. Increasing agency's prestige in the community	____	____	____	____	____
h. Office routines and procedures	____	____	____	____	____

	Very Great Help	Great Help	Some Help	Slight Help	Does Not Help
i. Problems with local, state or federal officials	____	____	____	____	____
j. Technical or professional consultation	____	____	____	____	____
k. Providing news and information	____	____	____	____	____

21. How much do you agree with the following statements about the United Way (Community Chest)? CHECK ONE ON EACH LINE

	Very Greatly Agree	Greatly Agree	Some-what Agree	Slightly Agree	Do Not Agree At All
a. United Way should provide more leadership in solving new and changing community problems.	____	____	____	____	____
b. United Way should be <u>the</u> major spokesman for local voluntary agencies.	____	____	____	____	____
c. We could probably do our work just as well without United Way.	____	____	____	____	____
d. United Way tries to exert too much influence over the work of our organization.	____	____	____	____	____
e. United Way should have the major responsibility for coordinating most local social planing.	____	____	____	____	____
f. United Way should exert more influence over member agencies.	____	____	____	____	____

	Very Greatly Agree	Greatly Agree	Some-what Agree	Slightly Agree	Do Not Agree At All
g. United Way should try to collect a larger amount of money each year.	____	____	____	____	____
h. United Way does a good job in allocating funds.	____	____	____	____	____
i. United Way spends too much for salaries and overhead.	____	____	____	____	____
j. United Way doesn't include all deserving agencies.	____	____	____	____	____

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