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THE DEVELOPMENT OF METHODOLOGY FOR EVALUATING THE EFFECTIVENESS OF A VOLUNTEER HEALTH PLANNING ORGANIZATION

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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* * * * *

The Ohio State University
1972

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Dedicated to Albert Schweitzer's concept of Reverence for Life.

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"Effects of vibration on Navy and Marine Corps helicopter flight crews." O.N.R. contract N00014-69-C-0289, August 1, 1969. With Danaher, J. W., and Morrissey, C. J.

"Effects of vibration and noise on helicopter pilots." NASA contract NASW-1751, May 1, 1969. With Toston, D. X., and Moore, D. E.

"Electronic and optically generated aircraft displays: a study of standardization requirements." O.N.R. contract N00014-67-C-0517, JANAIR Report No. 680505, AD 684 849, May 1968. With Jenney, L. L.

"An Investigation of the Effects of High Intensity Light Adaptation on Electronic Display Visibility." Master's Thesis presented at Society for Information Display 8th National Symposium, May 1967.

Published in the Journal of the Society for Information Display, 6, May/June, 1969.

"Experimental evaluation of head-up display high brightness requirements." Contract No. AF339675)8260, AD 626 657, November 1965. With Kelley, C. R. (senior author), and Strudwick, P. H.

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CHAPTER I

INTRODUCTION

OVERVIEW

Volunteer organizations are an accepted and necessary part of modern society. We are so accustomed to the benefits flowing from them, that it is difficult to imagine how improverished our world would be if they ceased to function. They are much too often taken for granted, even though they contribute millions of man-hours to projects that enrich our lives and help to protect our interests. Our seeming indifference toward them is evident in the organizational literature, where one finds that very few research studies are published about them. And few indeed are reports aimed directly at developing methodology for assessing their effectiveness. The present research seeks to help fill this void.

In particular, this dissertation concerns an organization similar in function and structure to many others of its kind throughout the nation. The Mid-Ohio Health Planning Federation, the subject agency, consists primarily of a small paid staff and several hundred part-time volunteers, who formulate its policies and carry out its program in a seventeen county area surrounding Columbus, Ohio.

Under its present name and charter, The Mid-Ohio Health Planning Federation is quite young. It was formed in 1968 from the existing

structure of a more specialized hospital federation, and subsequently assumed responsibility for a broad program of comprehensive health planning. The expertise and structure developed prior to 1968 has been advantageous to the new organization. In many respects, however, the Federation is breaking fresh ground and is still in an early phase of development.

Leaders of the Federation are optimistic about its future. They tend to agree that, on balance, its assets far outweigh its deficiencies. The Federation president, Dr. Harold Yochum, expressed this outlook in an address to the State Advisory Council in October, 1971. Emphasizing that people are the lifeblood of an organization, he pointed out that the Federation will be successful to the extent that it can attract skillful and dynamic people, and develop their potential.

These concerns are fundamental problems for all organizations. How does one attract, develop, and motivate effective members? And how does one know that he has been successful in so doing? There are no short, simple answers to these questions, but there are answers, answers which are closely bound to the general problem of organizational effectiveness. Hopefully, what these answers are will become apparent as we proceed.

It seems obvious that the eventual worth both of an organization and its members can be measured in the extent to which it achieves its goals. In the health planning field both must ultimately be judged by the impact that they have on improving the health of their communities. For example, has the infant mortality rate improved? Is there less

pollution? Are adequate medical services readily available? Have costs been minimized? Are disease and death rates at or below acceptable local, state, and national levels? These are a small sample of the types of questions that must eventually be asked of counties in the comprehensive health planning program. Improvements in health which are attributable to the work of the Federation can one day be used as the most salient measures of its success. But until that day, perhaps five or ten years hence after the Federation has had time to make an impact, what can be done to measure its development and effectiveness?

Some suggest that it is best to ignore this issue, because intuitively they know how well they are doing and what their problems are. Many others recognize that there is an evaluation problem to be dealt with, but haven't the time or know-how to begin solving it. Still others are afraid to face the issue, because anything that smacks of evaluation might upset some of the more sensitive members and focus attention on the organization's shortcomings. During the course of this study all of these attitudes have been expressed, either by members of the Federation or by the directors of agencies who were contacted. Although such views are understandable, they are clearly unacceptable. How, indeed, can one presume to systematically attack formidable and complex area-wide health care problems without knowing the strengths and weaknesses of his own striking force?

Returning to the question posed earlier, the assessment of an organization's effectiveness begins with a clear statement of mission and general goals. In our case the first has been stated for us in the

law and broad goals have already been determined by the Federation. The next step, consideration of more specific goals or objectives, is also part of the Federation's current procedure. It involves surveying health conditions in the counties and establishing priorities for dealing with them. The Federation has recently developed a more systematic approach for dealing with priorities and objectives which includes: (1) stipulating problem areas, (2) delineating a plan for solution and setting target dates, and (3) listing specific committee and staff responsibilities concerning the problem and the action plan. Knowledge of the Federation's progress in these matters indicates that this area be set aside for the present, to focus on topics freshly being broached in the present research. This brings us to the main problem in the present study, developing some means for assuring that the Federation has the proper mechanism assembled to accomplish the goals and objectives that are being established. What should we look for in the organization to determine that it is ready and able to fulfill its mission?

At least in hypothesis, a well-constructed volunteer organization will have active members who contribute time and energy to it. These members will be enabled to perform their tasks by being adequately trained or by already having the necessary skills and background before they join. Further, the organization will have effective leaders who can inspire and motivate others. Communications will be open and adequate so that information can flow freely wherever needed, and so that various components of the system will not feel isolated or cut off. Members will cooperate with one another, and subunits of the organization

will cooperate to the degree necessary to accomplish objectives.

Further, counties within the Federation which manifest the kind of characteristics outlined above will tend to outperform those which do not and will have more satisfied members. Organizational effectiveness, therefore, will be operationally defined precisely as a number of contemporary authors define it, in terms of the means and ends of the organization. "It is the extent to which an organization fulfills its objectives and preserves its means and resources" (Georgopoulos and Tannenbaum, 1957; Tannenbaum, 1968). The views of those who quarrel with this definition, and there are some who do, will be discussed briefly in Chapter III along with other theoretical issues.

At present, one such theoretical issue provides the framework to which the practical problems of organizational effectiveness in this study are bound. This refers to the human relations movement in industrial and organizational psychology which is best represented by Maslow (1954, 1965), McGregor (1960), Argyris (1957, 1964), and particularly Rensis Likert (1961, 1967). The last three of these writers are said to be prescriptive by Campbell and his colleagues (1970) "... in that they attempt to spell out the managerial and supervisory styles and practices which will result in a viable organization and in increased satisfaction and performance on the part of subordinates." Maslow is also prescriptive and can be included with the others. However, he is a bit more broad and tentative in his approach, having marked the way with some original and innovative theorizing.

In the course of this study one major report was found which

specifically ties human relations movement variables to the effectiveness of a volunteer organization. The subject organization, The League of Women Voters, was investigated by Arnold Tannenbaum and his associates at the University of Michigan in 1958. When considering his findings one should observe that his study is uniquely relevant to Federation problems, but that he cautions against generalizing his results too freely. Tannenbaum noted that different circumstances surround each League and findings in one situation may not apply to another. He clearly suggests that much more research is needed on volunteer organizations before we can determine which general principles apply. The present research extends his work by studying similar variables in a different kind of volunteer organization and by using different research tools.

As this dissertation proceeds, the issues, problems, and theoretical viewpoints mentioned throughout are so singularly important that it is difficult to remember that those in focus are but part of the whole story. They are closely woven into the general complex problem of defining and measuring organizational effectiveness. And it is hoped that the questions being posed will take on added meaning as specific topics are developed.

Before presenting theoretical and background material on organizational effectiveness, readers who are not familiar with the current trend in health planning in the United States will profit from a brief review of the comprehensive health planning program. We turn now to that topic.

CHAPTER II

COMPREHENSIVE HEALTH PLANNING

"... we have entered the brave new world of health planning. Great hopes exist for the health planning process. Can these hopes become reality? There is no option but to find out."

Albert W. Jones

THE PUBLIC HEALTH TRADITION

The United States has a tradition of public health programs that is nearly as old as the Republic. In some large eastern cities emergency boards of health were formed in the early 1800s to deal with communicable disease epidemics. A century later, public health encompassed quarantine and immunization practices, water purification, and waste disposal. Still later, clinics were established to vaccinate and help control disease. And eventually, the impact of social and economic factors on public health were more clearly recognized.

Despite the continuing efforts of practitioners, volunteers, and officials in health programs, many accomplishments were fragmentary, and over the years costs have soared ever upward. Moreover, there has been a growing, although for the most part unwarranted, feeling among the consumers of health care that value received has not kept pace with the increasing costs. Professionals know that the quality of

medical care has improved steadily, yet, they are agreed that something more has to be done to counter the cost trend. And always present is the specter of socialized medicine to spur their interest in developing an improved system.

In 1946, Hill-Burton legislation was passed to help plan and finance health facilities. This focused on the number of beds needed in a community and on brick and mortar projects. In 1961, the Federal Government broadened its approach to health care by enacting the Community Health Services and Facilities Act. This legislation provided federal assistance to help fund voluntary hospital planning on an areawide basis. These were important and commendable measures, necessary but not sufficient to cope with the array of health problems confronting us. Systematic planning, financing, and execution of health programs on a large scale were sorely needed.

THE COMPREHENSIVE HEALTH PLANNING AND HEALTH SERVICES ACT

Finally, on November 3, 1966, the nation became committed to total health care system planning, planning with a newfound emphasis on preventive measures and areawide solutions to health problems. This ambitious new program is administered by the Department of Health Education and Welfare, and is known as Public Law 89-749, The Comprehensive Health Planning and Health Services Act. Never before has federal financial assistance and leadership given such a high priority to the marshaling of all health resources against chronic and growing health problems.

Section 314(a) of the law provides for a single state agency to administer the planning process. Known as the A agency, its goals are threefold:

1. to identify problems and needs in physical, mental, and environmental health;
2. to inventory existing health resources of manpower, services, and facilities;
3. to determine the objectives and priorities for action to be taken.

(Ohio's Health, 1970, p. 2)

Another requirement of Section 314(a) is that both providers and consumers of health services constitute a state Advisory Council, and that consumers be in the majority. Membership is supposed to reflect geographic, ethnic, social, and economic characteristics of the state's population.

In addition to having a single A agency to administer the program in each state, Section 314(b) of the law provides that each state have a number of areawide health planning agencies, known as B agencies. Typically, these B agencies are responsible for establishing and advising voluntary groups in each of the counties subsumed within their membership roster.

Salaried staff members of a B agency may specialize in one or more areas of functional health care. The following six are typical: (1) community health, (2) environmental health, (3) mental health and mental retardation, (4) health facilities, (5) health manpower, and (6)

financing of health care. By developing specialized knowledge the staff member can serve a dual role. He can act both as a resource person and consultant, and as noted above, as an organizer of voluntary membership councils at the county level.

THE IMPORTANCE OF VOLUNTEERS IN COMPREHENSIVE HEALTH PLANNING

Clearly, the comprehensive health planning program has been conceived and structured so that planning and execution must take place at the grass roots level. When a community first becomes involved in it, B agency personnel must assume most of the burden for initiating, organizing, and coordinating activity. However, once the basic organization becomes operational, consumers and providers, who serve as volunteer members in county councils, must develop the capability and demonstrate the willingness to make the program work. There are not nearly enough salaried personnel to perform the myriad tasks in all of the counties involved; nor has it ever been intended that they should.

Ohio's Health (1970) has this to say about local participation in the program.

> When drafting PL 89-749, Congress was concerned that Comprehensive Health Planning determine and provide for the needs of the people, and it recognized that such needs are best known by the people themselves. To give these people voice, and to gain public support by involving the public, the Bill calls for local and non-professional participation in the planning process. The requirement for consumer representation on the Advisory Council is an example of this policy.
>
> (Ohio's Health, 1970, p. 3)

This assessment marks the bedrock rationale of comprehensive health planning. Indeed, as indicated below, it is in accord with the consensus opinion of health planning experts who have studied the problem in depth.

> Energetic and persistent efforts to extend both the quantity and quality of voluntary participation of individuals and groups is a primary need in the evolving effort to improve community health services. ... This is based on no simplistic notion that all wisdom resides in Main Street.... Rather it is simple recognition that action to mitigate today's health problems requires the informed involvement and participation of the individuals and institutions which comprise the problems and finance the solutions.
>
> (Folsom, 1966. pp. 160-161)

The above quotations underscore the importance of volunteer workers to the comprehensive health planning process. Belaboring this proposition is risked because it is the focal point of the present study. The crux of our most immediate problem is to determine how to evaluate and improve the effectiveness of county health planning councils which are comprised of volunteer members. Most B agencies are interested in how this might be done; yet, few seem to have made much systematic progress in doing it.

This study concentrates primarily on volunteers rather than on salaried staff members, because it is the volunteers who must ultimately prove that the rationale of the program is viable. Although the B agency and its staff are indeed important and worthy of careful consideration, staff members are paid professionals. Both experience and logic suggest that they are not as likely to be unable to perform acceptably as are

part-time volunteers. Furthermore, if staff members are ineffective, they can be taken to task and, if necessary, replaced. It is obviously much more difficult to control the performance of ineffective or recalcitrant volunteers. For these reasons center stage in this study belongs to the volunteers.

THE MID-OHIO HEALTH PLANNING FEDERATION

The Mid-Ohio Health Planning Federation is one of eleven B agencies in Ohio. It was founded in 1945 to coordinate the planning and financing of hospitals in Franklin County, and until 1968 was known as The Columbus Hospital Federation. Its executive director, Delbert L. Pugh, is a nationally known leader in health system planning. He is also one of the pioneers in this field, having trained a number of former staff members who now head their own agencies, and having developed concepts that are being implemented in Ohio and in other states.

Twelve of the seventeen counties in the present organization had been members of the earlier Columbus Hospital Federation for six years prior to its changeover. Knox, Marion, Morrow, Pike, and Scioto counties joined the rest in 1968 when the new Federation was formed.

SIZE

Figure 1 indicates that Mid-Ohio represents seventeen of Ohio's eighty-eight counties and includes approximately sixteen per cent of its population. The Federation staff in Columbus consists of thirteen full-time members plus clerical and support personnel. This is comparable with the other large B agency in Ohio, the Metropolitan Health Planning

Fig. 1. --The Mid-Ohio Health Planning Federation population - 1970 census

Corporation of Cleveland, which has twelve staff members. The rest of the agencies in the state represent less heavily populated communities and have from three to seven professional staff members.

STRUCTURE

Structurally, The Mid-Ohio Health Planning Federation is a flat organization, consisting primarily of a Board of Trustees and seventeen semiautonomous county health planning councils. Each council has its own chairman, ancillary officers, and members. Aside from a few general provisions and the decisions made by the Board of Trustees, county councils are free to conduct their affairs as they see fit. Some councils have an executive committee, others do not. Some consider all members to be part of their county board of directors. In others, only a few members are so designated. It is apparent that there is considerable flexibility in the way county councils may be organized. There is also considerable leeway in the number of meetings that may be held. The minimum, however, is at least one annual meeting.

MEMBERSHIP

All members of the Federation are classified according to occupation as being either consumers or providers of health services. The maximum number of members allowed in a given county is not specified, although consumers must be in the majority. At present, the median membership is 43 for all counties except Franklin, which is the highest, having approximately 132 members.

Unfortunately, total membership of the Federation is not accurately

known. It had at first been estimated that there were 1200 members, but admittedly, this was a guess. After staff members asked their counties to update rosters, the total shrank to 789 and subsequent information suggests that it may be even less than 700. There are several reasons for this ambiguity, reasons that are inappropriate to consider at this time, but which will be discussed later in the results section, Chapter V.

FUNCTIONS

Whatever their membership, county health planning councils are charged with the responsibility for implementing comprehensive health planning within their respective geographic areas and for coordinating activities with neighboring communities. Functions include the identification of resources and services, establishing priorities, reviewing proposals, and periodically reviewing on-going projects. Each council also assumes responsibility for raising its share of the Federation budget.

THE BOARD OF TRUSTEES AND AREAWIDE STANDING COMMITTEES

In addition to the county oriented structure, each council draws from its member pool according to population to furnish representatives for the fifty-five member Board of Trustees which, as indicated earlier, is the policy and final decision making body for the entire Federation.

Areawide standing committees constitute a third major structural component of the Federation. And they too consist primarily of volunteers. One member from each county is designated by the local council to be its representative on an areawide standing committee, such as Manpower or Environmental Health. These committees develop expertise

in their subject areas, and provide advice and information, both to the Board of Trustees and directly to the counties. Each committee is served by one of the salaried staff members of the B agency, who functions as its resource expert. He, in turn, shares leadership responsibilities with the elected committee chairman.

In sum, the Federation consists of seventeen county health planning councils, a Board of Trustees drawn from the councils, six areawide standing committees, and a salaried staff. As indicated in Figure 2, there is also an Executive Committee and a Nominating Committee within the organizational framework. Other agencies are not necessarily structured in this way. However, many are and the basic components, a small staff and many volunteers, is quite representative.

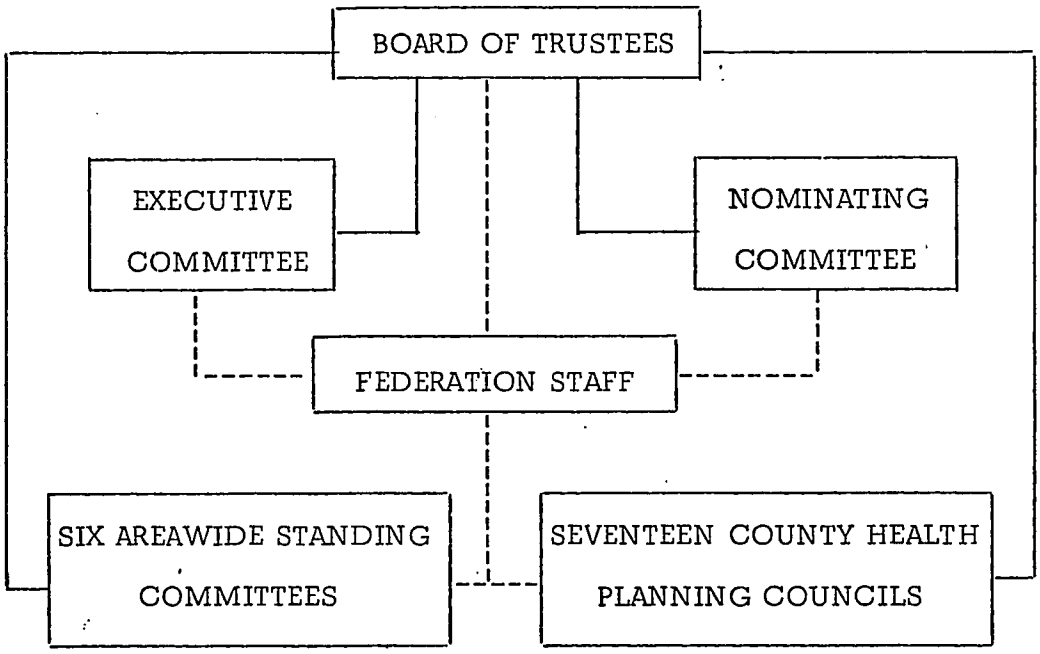

Fig. 2. -- Organization structure of the Mid-Ohio Health Planning Federation

CHAPTER III

REVIEW OF RELEVANT LITERATURE

"Organizational research ... has the potential for ... helping to solve some of the most serious problems in present day society."

R. Likert and D. Bowers

ORGANIZATIONAL EFFECTIVENESS: THE GOAL-CENTERED APPROACH

There is no generally accepted definition of organizational effectiveness which satisfies all practical and theoretical purposes. This by no means implies, however, that we do not have a good and useful definition which is quite well suited for the present application. The situation is somewhat analogous to the field of mental measurements, where theorists have never fully agreed on what intelligence means. Even so, they have made important progress in measuring various operationally defined components and aspects of it. And so it is with the definition of organizational effectiveness. On balance it can be said that the practical benefits of our chosen definition seem to far outweigh its theoretical imperfections.

It was mentioned earlier that in the present study a suitable operational definition of organizational effectiveness is that proposed by Georgopoulos and Tannenbaum (1957), "the extent to which an organization fulfills its objectives and preserves its means and resources."

This is a generally accepted approach that has many proponents. It also has the advantage of being well suited for use by the Mid-Ohio Health Planning Federation, where heavy emphasis has been placed on carefully defining priorities and objectives, and measuring progress toward them.

Among the advantages of the goal-centered approach is its cardinal virtue of allowing managers to measure performance in terms of concrete achievements. Broad goals can be broken down into specific objectives, priorities can be established, and specific assignments of objectives can be made to groups or individuals. They, in turn, can report on their progress in carrying out assignments. And after such progress has been reported, comparative performance data can be gathered and appropriate norms and standards established.

The goal-centered approach is flexible in that more important objectives can assume higher priorities, and emphasis can be placed on either output or process variables, depending on which of these an assessment of the organization's needs reveals is most important. Flexibility is also associated with selecting the types of goals to be considered. That is, formal goals are useful if they are known to be generally accepted by management and other members of the organization. Informal goals are emphasized in accord with their relevance. They can be surfaced by having members throughout the organization take part in goal setting. And merely doing so can foster increased motivation and achievement.

In general, the goal-centered approach is a rational, flexible,

and systematic method which stresses performance and accountability. Paraphrasing Drucker (1954), to manage is to balance a variety of needs and goals; to make judgement possible by narrowing the range of alternatives; and to provide a sound foundation for judgement with a broad data base of facts and the reliable measurement of the effects of actions and decisions. In effect, for Drucker, to manage is to practice the goal-centered approach.

It can be argued and is suggested here that if an organization's accomplishments are measured over time and are compared with those of similar organizations, a useful operationally defined system for assessing organizational effectiveness is achievable. To be sure, as Bennis cautions (1966), a healthy organization may for a number of reasons not be very effective in terms of performance and efficiency, or the reverse. Being healthy and effective are not the same. He prefers to think of organizations as being "...adaptive, problem-solving systems embedded in complicated and rapidly changing environments." Therefore, it is the methodological rules and procedures for dealing with change which are important in determining organizational effectiveness. These include a scientific spirit of inquiry and the willingness to actually do some experimenting, to expose ideas to empirical testing.

It is interesting to note that Bennis' comparison of the mental health of individuals to the health of organizations does not preclude the goal-centered approach, quite the contrary. He emphasizes problem solving and adapting to reality by determining how accurately goals are understood and shared by members of the organization. Moreover, he

states that, "Rational problem solving is the only means presently known by which organizations may be rid of persistent intergroup conflict."

It is apparent that the goal-centered approach has a number of advantages and is not incompatible with such popular concepts as the adaptive system model of organizations. What then of the critics? Why do they object? And more importantly, what do they offer in place of a definition that has the twin advantages of face validity and quantifiability?

One such critic is Ephraim Yuchtman, who summarized many of the extant viewpoints about organizational effectiveness in his dissertation at the University of Michigan in 1966. Yuchtman admits that the goal-centered approach to organizational effectiveness has been the most widely employed. He mentions Barnard (1938), Michels (1949), Baumol (1959), Dent (1959), and White (1960) among its adherents, noting that all except the earliest "employed the goal approach as a major tool in their assessment of organizational success." He might well have added the name of a leader in management performance from his own school, George Odiorne, who wrote "Management by Objectives" in 1965, and devoted a chapter in it specifically to measuring organizational performance.

Yuchtman states that "the goal approach has been adopted by many researchers since it seems to safeguard them against value judgement and other subjective biasses." He also notes that Katz and Kahn (1966) recognize that "...the primary mission of an organization as perceived

by its leaders furnishes a highly informative set of clues," even though they warn that the stated purposes of such leaders can be misleading. In countering the advantage of greater objectivity, he calls on Etzioni (1960), who seems to be more pro than con in the following passage, which nevertheless is used by Yuchtman to further his point:

> The model is considered an objective and reliable analytical tool because it omits the values of the explorer and applies the values of the subject under study as the criteria of judgement. We suggest, however, that this model has some methodological shortcomings, and it is not as objective as it seems to be.
>
> (Etzioni, 1960, p. 258; quoted in Yuchtman, 1966, p. 10)

Other problems are raised by Starbuck (1965) who finds it difficult to distinguish cause and effect relationships in identifying goals. And Haberstroh (1965) who distinguishes between formal objectives and the "common purpose" of the organization. A few additional examples are given by Yuchtman to add to the weight of his reasoning, but these are generally similar to those already cited and will not be specified here.

In sum, Yuchtman suggests that we have a popular approach which is objective, guards against subjective bias, provides an informative set of clues, and uses the subject as the criterion of judgement. It also has some methodological shortcomings, can be misleading, cannot distinguish clearly between cause and effect, and may or may not account for informal goals. Granting that in some instances the shortcomings may dominate, it is not clear that they are of great concern in a majority, or even a large portion of cases. Without more convincing

evidence the objections to the goal-centered approach are not overwhelming. However, the objections are not to be taken too lightly. Dissidents seem to be on sturdier ground when they confine their objections to theoretical issues, being much less persuasive when they attempt to operationalize their views.

Daniel Katz and Robert Kahn (1966) have been in the vanguard of theorists seeking a broader, more generic concept of organizational effectiveness. They emphasize the systemic qualities of all organizations, thinking of them as being comprised of subsystems and, in turn, being subsystems of some larger unit. More specifically, they think of an organization as an open system. It takes in energy in the form of people, materials, or some other resources; processes it in some way; and returns a portion of it to the environment as an output or product. In this schema, the organization is effective as long as it maintains negentropy, that is, imports more sustaining energy than it exports.

Yuchtman (1966) adopted this theme and tried to improve on it. He too thinks of organizations as being in an exchange relationship with their environments. But for him, the emphasis is on competition with other organizations for "scarce and valued resources," the most effective organization being the one that accumulates the most resources. Unfortunately, as attractive as this at first seems, it immediately presents both theoretical and practical difficulties which are not adequately resolved for us, even though Yuchtman clearly sees the main problem.

One difficulty in using a comparison of organizations based on the accumulation of resources is in starting them out evenly. An ineffective

organization may have started with vast financial backing and lost its advantage constantly; yet, still have more total resources at measurement time than its more effective competitor. The latter may have started with little and grown steadily stronger. Negentropy allows for this and would indicate that the growing organization is effective, while the declining organization is not. However, a mere comparison of accumulated resources does not appear to account for such differences. In this example, the open systems concept presents no problem. The difficulty is in extending it to an operational form without accounting for such factors as time, relative rates, and trends.

Another difficulty, one that Yuchtman himself discusses but does not resolve, concerns the limits both of his definition and of that proposed by Katz and Kahn. When carried to an extreme, the accumulation of more resources means that one organization would totally dominate and monopolize all others with which it competes, eventually driving them to extinction. This might easily become counterproductive, perhaps leading to public and legislative sanctions, and eventually cause the regression or dissolution of the dominant organization. Furthermore, if an organization seeks only to maximize its return by all means, as Katz and Kahn suggest in trying to operationalize their definition of effectiveness (1966, p. 170), a similar problem to that found in Yuchtman's reasoning occurs. And would not an effective organization exploit its own members? Yuchtman states that "such an exploitation is never... to be maximized" (1966, p. 30).

Where, then, are the limits in these concepts? Yuchtman suggests

that optimization seems much preferable to maximization if we are to avoid a trap in the theory's logic. But again, how does one determine where the optimum point is in an applied situation? We are given no workable solution to the problem. Yuchtman seems to turn away from it by observing that most organizations never approach maximization anyway. Furthermore, even though he favors the optimization principle, calling his a position somewhere between "a minimal level of survival and a maximal level of abundance of resources and control over its environment" (1966, p. 34), he offers no advice in helping to find such a position.

One may well conclude from this that the proposed definitions of organizational effectiveness are too vague in their present forms to be of much practical use. And are certainly not well enough developed to replace the established goal-centered approach. The burden of proof is clearly on the challengers. To argue that maximization is not often encountered, and that although the preferable definition of effectiveness requires explaining what optimum means, and this is too difficult, does not make these problems disappear. It begs the issues. Until a better conceived alternative is presented, organizational researchers would be well advised to consider carefully the advantages and disadvantages of the goal-centered approach in comparison with those of any proposed alternative.

THE SCOPE OF ORGANIZATIONAL EFFECTIVENESS

Truly, organizational effectiveness is one of the most complex and challenging topics in contemporary organizational research. It circumscribes a dynamic and multidimensional problem area, involving questions of leadership, supervisory styles, power, control, structure, motivation, climate, goal setting, and many others. Each of these topics has spawned an impressive amount of research in its own right. The complexity is such that it is not surprising that there is a lack of consensus about how these variables relate to one another in a given situation.

In an article reviewing just one of the facets of organizational effectiveness, supervisory styles, Stephen Sales (1966) observed that any review of the literature must be limited "if both the reviewer and readers are to escape total exhaustion."

Clearly therefore, an eclectic approach is required. This review will begin by touching briefly on the trends in organizational theory leading up to the human relations movement. Then, attention will be given to the work of prominent contributors to the movement, particularly Rensis Likert and his associates at the University of Michigan, where most of the movement is centered, and where the basic survey instruments used in this study were developed. And finally, some empirical evidence will be cited and the rationale for the research approach being taken will be noted.

TRENDS IN ORGANIZATION THEORY

During the first part of this century many business managers still thought of their workers in terms reminiscent of the industrial revolution of the two preceding centuries. Unions were not yet strong and mature, and the Protestant Ethic had long suggested that the best and most deserving men would, like cream, rise to the top. If a worker was taken advantage of, it was probably his own fault for being stupid or lazy, or otherwise deserving of his fate. The business of industry was business and workers were to be used as management saw fit.

The classical organization theory sprouting from this soil emphasized efficiency, but did so in a rather narrow, shortsighted way. Theorists tried to arrange things so as to best use members of the organization, rather than encouraging them to make the best use of themselves.

March and Simon (1958) distinguish two main lines of development occurring during this early period. The first, called the scientific management movement, derived from the work of Frederick W. Taylor. He studied the characteristics of the human organism from a physical standpoint, trying to find the one best way of doing a job. Capacity, speed, durability, cost, fatigue, strength, and anthropometry were given careful consideration in his time and methods studies, and the amassed data were used to develop work standards and unit times. Interestingly, some of the techniques used in present-day human engineering deal with the same types of variables.

The second line of development is exemplified by the work of

Gulick and Urwick (1937), Fayol (1949), and others. It is called the administrative management theory and emphasizes such structural and control problems as the departmental division of work and the overall coordination of activities. For example, given this many workers and that many tasks, it is assumed that there is some most efficient way of dividing and allocating them to yield a maximum return to the organization. Units of the organization are considered to be self-contained in accord with their degree of independence from other units; and a single director of each functionally autonomous unit is best able to carry out its purposes by controlling the organization from the top down.

Bennis (1959) adds a third theme to the developmental trends specified by March and Simon. He notes that Max Weber's "ideal type" bureaucracy strives to produce an organization which emphasizes precision, speed, unambiguity, continuity, strict subordination to authority, and so on. And omits from official business such irrational human emotions as love, hate, jealousy, and compassion.

All three of these themes suggests that organizations and their work should be structured and controlled so as to minimize the vagaries of human behavior. In Bennis' view they differ somewhat in their assumptions about such behavior. Weber believed man to be irrational and unpredictable. The way to avoid his capriciousness was to construct an impassionate and rational monolithic system, a bureaucracy, to control him. Urwick chose to view personnel as a given rather than a variable, and "the employee as an inert instrument performing the tasks assigned ..." (March and Simon, 1958). Accounting for his

idiosyncracies would lead to chaos. Taylor, on the other hand, carefully studied the physiological and engineering parameters of man's work behavior to enable him to produce at maximum efficiency.

All three themes strove for rationality and predictability, and paid allegiance to external authority: Taylor to science, Urwick to some undefined organizational planner, and Weber to the institutionalization of authority sanctioned by society. Bennis summarizes his comparison in this passage.

> Loosely speaking then, classical organization theory portrayed man as either too base or too unpredictable to consider; viewed power as springing from forces out of control of the organization's members; struggled with the man-machine problem and decided on the latter; believed that organizations were, or could be, rationally planned and executed.
>
> (Bennis, 1959, pp. 265-266)

THE HUMAN RELATIONS MOVEMENT AND THE HUMANISTS

In the 1930s a research study was conducted which helped to change the concept of organizations from a rational model devoid of human shortcomings, to an exceedingly more complex one, embracing both traditional concerns and the less tangible world of needs, motives, and feelings. This enlightened turnabout followed from a series of celebrated experiments conducted at the Hawthorne Works of the Western Electric Company. Elton Mayo and his associates set out to investigate the effects of factory lighting on productivity, and ended by making "popular with management the notion that workers are human" (Bass, 1965; see also Roethlesberger and Dickson, 1938).

The Hawthorne Studies underscored the importance of morale, informal structure, employee attitudes, counseling, and simply paying attention to workers. It was no longer acceptable to dismiss the human side of organizations as an unfathomable swamp; for it had just been demonstrated in hard production criteria, that ignoring behavioral variables might well lead to a great deal more difficulty than it avoided. The challenge to behavioral scientists was clear and is not yet completely resolved. Study the breadth of human behavior in organizations, and develop appropriate hypotheses, theories, and principles to determine how best to cope with it.

The new model of organization which grew during the 1940s and '50s is called the human relations model. It has had many contributors, has generated a great deal of research, and for the most part is still developing. Its central assumption is that criteria, such as production and member satisfaction, are affected by certain social and psychological needs and environmental conditions within the organization.

MASLOW

Abraham Maslow (1954) contributed greatly to the new concept by providing some of the early theoretical formulations with which human relations proponents challenged the rational model. His theory, called either the need hierarchy or self-actualization theory, posits five overlapping levels of prepotent needs arranged from lower to higher as follows: (1) physiological needs - such as hunger, thirst, and sex; (2) safety needs - such as stability, order, and security; (3) social

needs - including the need for affection, belonging, identification, and affiliation; (4) egoistic or esteem needs - such as prestige, achievement, and self-respect; and (5) the need for self-actualization - which means to develop one's full potential, however this might be defined for a particular individual.

According to Maslow, men are motivated by one or a combination of needs in the hierarchy. The lowest level needs tend to dominate behavior until they become reasonably well satisfied. Then the next most basic needs assume dominance and so on, until the individual reaches the highest level. And it is at the higher levels that some of the more sophisticated management principles, such as Drucker's (1954), and Odiorne's (1965) seem to work best (Maslow, 1965).

In reading Maslow's theory, one should keep in mind that it is very general and was meant to provide a rough frame of reference, not well proven and detailed pronouncements about specific relationships. It is not at all clear, for example, how economic rewards relate to need levels, since money is undoubtedly instrumental in satisfying many types of needs (see Opsahl and Dunnette, 1966).

The eupsychian management philosophy described by Maslow in one of his last major publications (1965) suggests the same kind of bold heuristic thinking. Eupsychian means roughly moving toward psychological health in management. In fact, Maslow coined the term eupsychia, defining it as the culture that would be generated by 1,000 self-actualizing people on some sheltered island.

Maslow became interested in organizational psychology after

spending nearly a lifetime in psychotherapy. He was therapist, scientist, and philospher, and above all an original and innovative thinker. For him, individual psychotherapy was impractical for improving the world or the whole human species, because it is a quantitative impossibility. He first turned to education as a way to make people better en masse; then realized that perhaps the work-life of individuals is even more important since almost everyone works.

In essence, his message consists of the following logic. People are growing both in their actual health of personality and/or in their aspirations. The more they grow and the better educated they are, the poorer will authoritarian management work, the less well they will function in the authoritarian situation, and eventually, they will come to hate the authoritarian approach. People who have experienced dignity, self-respect, or freedom can never again be content with slavery or degredation, even though they did not protest it previously. Therefore, the better society grows in terms of politics, education, and ideals, the less sutiable are its people for autocratic management. In short, he considers eupsychian management to be the wave of the future. It is a growth philosophy and, in his view, we are experiencing a continuing growth trend.

Thirty-six assumptions are said by Maslow to underlie eupsychian management policy. He calls them the necessary preconditions for McGregor's Theory Y, which will be described next, to work. Here are a few of Maslow's assumptions: "assume everyone is to be trusted, ... everyone is to be informed as completely as possible of as many facts

and truths as possible..., assume synergy, assume that people are improvable." It is unnecessary to reproduce the entire list to indicate the types of assumptions that it contains. Maslow is suggesting that people can and should be treated with respect, should be trusted, and should be encouraged to develop toward self-actualization. Note carefully, however, that even though experience suggests that eupsychian management principles should work for many people, they are to be regarded as highly tentative and experimental until more thoroughly researched data are available. Some people are expected to respond negatively to an expression of faith in their goodness and trustworthiness. To these types, whatever their numbers, Maslow suggests that "an s.o.b. should be treated like an s.o.b."

MCGREGOR

Douglas McGregor (1960) strongly influenced Maslow and other organization theorists and was in turn, influenced by them. He provided one of the earliest milestone statements of the failure of industry to adequately use its human resources. Basing his approach on Maslow's need hierarchy, McGregor found that both the literature on organization and on management practice accepted authority as an absolute rather than a relative concept. In his opinion this directly caused some of the most troublesome problems in managing the human resources of industry. Among the problems flowing from the assumption of absolute authority are these.

1. Authority as a means of control depends on one's ability to enforce it.
2. Countermeasures are available to employees who are subjected to such authority. A range of behavior from ineffective compliance to open rebellion may occur.
3. Managerial purposes may be defeated by such things as indifference to organizational objectives, low standards of performance, ingenious forms of defensive behavior, and refusal to accept responsibility.

(McGregor, 1960, pp. 21-22)

In addition to these problems McGregor found that various needs of workers went unrecognized or unfulfilled in the absolute authority system. Safety needs, for example, are said to assume considerable importance for industrial employees who are in at least a partially dependent relationship with their employers. This is particularly true when arbitrary management actions, favoritism, or discrimination arouse uncertainty.

McGregor suggested that the existence of social needs were misunderstood by management. Instead of making use of the natural "groupiness" of human beings for achieving organizational goals, management often went to considerable lengths to control and direct human efforts in ways that were self-defeating, and which caused resistance, antagonism, and lack of cooperation. Similarly, egoistic needs relating either to one's self-esteem or to the need for status and recognition were typically unheeded by organizations, as were those relating to self-fulfillment.

Those rewards and incentives offered by management were useful in satisfying needs only when the worker was off the job. The job thereby became perceived as a form of punishment to be avoided as much as possible. As a consequence of such deprivation, workers were said by McGregor to behave with indolence, passivity, unwillingness to accept responsibility, resistance to change, willingness to follow the demagogue, and with unreasonable demands for economic benefits.

The foregoing reasoning led McGregor to conclude that certain assumptions were implicit in the literature on organizations and in much of the managerial policy and practice at the beginning of the 1960s. And, of course, the situation has not changed much during the last decade. McGregor called the traditional view of direction and control, Theory X. These are its three major assumptions:

> 1. The average human being has an inherent dislike of work and will avoid it if he can.
>
> 2. Because of this human characteristic of dislike of work, most people must be coerced, controlled, directed, or threatened with punishment to get them to put forth adequate effort toward the achievement of organizational objectives. ...
>
> 3. The average human being prefers to be directed, wishes to avoid responsibility, has relatively little ambition, and wants security above all.
>
> (McGregor, 1960, pp. 33-34)

It seems obvious from the very persistence of the theory that some human behavior can indeed be accounted for by Theory X, but by no

means all. McGregor recognized this and noted that many observable phenomena in organizations are inconsistent with the Theory X view of human nature. Others too have found Theory X lacking. Argyris (1957) is said by McGregor to have shown that conventional managerial strategies are more admirably suited to the capacities and characteristics of the child rather than the adult. Both Maslow and McGregor would agree that changes in the population: in education level, health of personality, aspirations, attitudes, values, motivation, and degree of dependence, have created general dissatisfaction with the authoritarian approach to control in various aspects of life. In fact, the dissatisfaction is so apparent that even the Navy, under Admiral Zumwalt, has taken heed and is at long last adopting a more humanistic response to the needs of its enlisted men (Time, 1970, p. 17). Clearly then, McGregor and others suggest that Theory X fails to utilize the full potentialities of the average human being.

The failure of Theory X to satisfy most of the needs which affect worker motivation led McGregor to formulate a new management strategy, called Theory Y. It assumes the following:

1. The expenditure of physical and mental effort in work is as natural as play or rest. The average human being does not inherently dislike work.

2. External control and the threat of punishment are not the only means for bringing about effort toward organizational objectives. Man will exercise self-direction and self-control in the service of objectives to which he is committed.

3. Commitment to objectives is a function of the reward associated with their achievement. ...

4. The average human being learns, under proper conditions, not only to accept but to seek responsibility. ...

5. The capacity to exercise a relatively high degree of imagination, ingenuity, and creativity in the solution of organizational problems is widely, not narrowly, distributed in the population.

6. Under the conditions of modern industrial life, the intellectual potentialities of the average human being are only partially utilized.

(McGregor, 1960, p. 47)

These assumptions are said to indicate the possibility of human growth and development and are not framed in terms of the least common denominator of the factory hand. Rather, they indicate a resource which has substantial potentialities. Furthermore, Theory Y places the burden of worker motivation and the development of worker potential squarely on management. Limits on worker collaboration in achieving organizational goals are not those of human nature, as Theory X suggests; they are a function of management's ingenuity in using the potential represented by its human resources. Finally, Theory Y assumes that people will exercise self-direction and control in the achievement of organizational objectives to the degree that they are committed to those objectives, and such commitment does not flow from Theory X assumptions. Thus, we are faced with the problem of generating commitment and of matching individual and organizational goals. Chris Argyris, another

major contributor to the human relations movement, offers some suggestions as to how this might be done

ARGYRIS

The conflict resolution model of Chris Argyris (1957, 1964) provides another extremely broad concept of organizations. His approach is eloquently described by Wood (unpublished manuscript) as being one which "can have a place in theory construction, that is, in initial exploratory work and hypothesis generation." However, the extreme breadth of his theory makes it difficult unequivocally to isolate and test useful segments of it. Further, his research methods are said by Wood to, "reflect his preference for investigating the total, complex personality, and employing treatments to assist in the development of healthy adult employees." His methods consist principally of clinical diagnoses, case studies, anecdotal data, and other nonrigorous procedures which have been criticised by Dunnette and Campbell (1968) as being too global and vague. Argyris (1968) counters that rigid scientific controls are sometimes inappropriate in organizational research because, among other things, they are obtrusive, biased, resented by those studied, and subject to self-fulfilling reactions.

We might note that many of the humanists tend to be vulnerable to criticisms of extreme breadth, and lack precision in defining relationships among the interacting variables encompassed by their theories. Wood's comment seems to sum up the matter, ..."if our scientific purpose is to establish empirical laws and generalizability across varying

organizational settings, as the Argyris model is intended to do, we must at some point adopt rigorous procedures which lend confidence to the internal and external validity of our results."

In substance, the conflict resolution model describes the parallel dynamics of individual versus organizational progression toward independent self-actualization. In Theory X type organizations this independent striving for incompatible goals often leads to incongruencies and conflict, a "gnashing together of two sets of values and behaviors" (Wood).

Dunnette and Campbell (1968) have this to say about the Argyris approach.

> Based on his theories of human and organization behavior, Argyris argues that most individuals in industry tend to have their needs for growth and maturity frustrated by the demands for dependency made by most organizations. The initial result is employee apathy, but when faced with organizational stress, the apathy may become aggression or withdrawl, which is countered by the organization with further controls and constraints. Followed in turn by further employee counteractions. Thus, the vicious cycle of organizational constraints, employee counteractions, further constraints, and so on is set off.
>
> (Dunnette and Campbell, 1968)

Obviously, the above description is compatible with the logic dictated by Theory X principles. Classical organizational structure prescribes hierarchical chain of command, narrow control, top-to-bottom information flow and influence, task simplification, and limited responsibility. These steps do not permit individuals to experience

the intrinsic rewards which lead to need fulfillment, psychological growth, and self-actualization. The organizational demands run directly counter to the worker's needs and values, creating the greatest impact at the lower levels where the demand for submission is most pronounced.

What then can be done to diminish the conflict that traditional management policies tend to generate? Conflict resolution implies profound changes throughout the entire organizational structure, starting at the top. According to Wood, there are two basic lines of approach suggested by Argyris: (1) a general loosening of controls and structure is required so that members can more effectively control their destinies and become more directly involved in helping the organization attain its objectives. Job enlargement and a democratic, employee-centered style of leadership are the two most apparent methods for achieving these ends. (2) The second approach involves the re-education of managerial personnel so that managers can increase interpersonal competence. This can be done by using T-group or laboratory education training.

The logic in Argyris' approach is evident. He has defined the problem and prescribed remedies which seem attractive for the intended purpose; moreover, these prescriptions may indeed work. Again, the problem is that a host of variables such as individual differences, interaction effects on subgroups, situational constraints, and the like must be researched before we know how effective a specific technique is likely to be in a given situation. This has not yet been established, and is not likely to be, unless some rigorous procedures are adopted within a program of extensive laboratory and field experimentation.

LIKERT

The final, and in some ways the most interesting approach of those being considered, is the human resources concept of Rensis Likert at the University of Michigan's Institute for Social Research. His basic tenets (1961, 1967) are similar to those of Argyris, Maslow, and McGregor in their focus on the efficient use of human resources, and on the dignity and value of employees at all levels of the organization.

Although Likert and the Michigan researchers have been active since the late 1940s, the major initial publications of this group and those of the other cited humanists appeared in the late 1950s and early 1960s. Other writers such as Fayol, Haire, Drucker, and Erikson have made decided contributions in this area, making it difficult in some cases to determine which writings influenced which. There is indeed considerable overlap in many of their approaches and a good deal of cross-fertilization has evidently taken place. Each has made a unique contribution and each has some distinguishing characteristic or emphasis to mark his effort. Those chosen for this review were selected both because they seem to be working toward the same general objectives and because their formulations are of potential use to contemporary organizational research scientists.

Two of Likert's major formulations are of particular interest, the principle of supportive relationships and his emphasis on human resource accounting. Likert states his principle as follows:

> The leadership and other processes of the organization must be such as to ensure a maximum probability that in all interactions and in all relationships within the organization, each member, in the light of his background, values, desires, and expectations, will view the experience as supportive and one which builds and maintains his sense of personal worth and importance.
>
> (Likert, 1961, p. 103)

The relationship between superior and subordinate is critical in applying this principle. As the principle specifies, it should be ego-building and supportive rather than ego-deflating (Likert, 1967). Since the subordinate's perception of the relationship is the important ingredient, Likert suggests that "it is possible to test readily whether the superior's (and the organization's) behavior is seen as supportive by asking such questions as the following: ..."

> 1. How much confidence and trust do you feel your superior has in you? How much do you have in him? ...
>
> 3. To what extent is he interested in helping you to achieve and maintain a good income? ...
>
> 8. To what extent does your superior try to keep you informed about matters related to your job? ...
>
> 12. To what extent is your superior generous in the credit and recognition given to others for the accomplishments and contributions rather than seeking to claim all the credit himself?
>
> (Likert, 1967, pp. 48-49)

Experience indicates that questions such as these are the kinds that subordinates are very much concerned with. Moreover, these are

questions that provide considerable face validity in their relationship to morale or work attitudes. For many, the superior is, in effect, the vertical organization. They have little contact with those above him. Others may take a larger view, realizing that their immediate superior is only one part of a larger whole. Even so, they may be equally or even more frustrated than their peers if their superior assumes a non-supportive role and effectively blocks their growth. Transfer, termination, or resistance may be their only options.

Likert and the other humanists are quite correct in insisting that the entire organization must convert to a supportive climate. Fleishman has shown (1953) that leadership training cannot be considered in isolation from the social environment in which the leader must function. It follows that it is important to start at the top levels and work down if we want to be truly effective in human relations improvement. Workers who are frustrated by their immediate supervisors may see considerable hope if his actions are out of step with the rest of the organization. And further, he will be less likely to be out of step if he knows that his approach runs counter to overall management philosophy.

We can summarize Likert's view of supportive relationships by noting that the heart of the matter is the involvement of employees in the structure of their work and the work environment. Workers must be involved in decision making processes. This implies a solid structure of democratic, supportive leadership throughout the organization, and emphasizes the importance of full and open communications.

Likert recommends that group decision making be facilitated by

creating a hierarchical "linking pin" structure, wherein each work group is linked to the next higher group by means of persons who hold overlapping group membership. Interaction in decision making occurs both horizontally, within groups, and vertically, among subordinates and superiors of interlocking groups. It is important to observe that in this scheme the superior is not allowed to escape responsibility for group inactivity or failure. "He is responsible for building his subordinates into a group which makes the best decisions and carries them out well. The superior is accountable for all decisions, for their execution, and for the results," (Likert, 1967, p. 51). It isn't that he does less; rather, the others join with him and share some of the responsibility. This would obviously require full and open knowledge, awareness, and communications. The idea has considerable intuitive appeal, but it has not yet been thoroughly researched.

Likert and Bowers (1969) reflect on the early hope of those in the field, that social scientists engaged in research on management and organizational performance might find a "marked and consistent relationship between the management system of a leader, the attitudes and loyalties of his subordinates, and the productivity of his organization." However, considerable research since World War II has failed to show simple, consistent, dependable relationships between employee attitudes and productivity.

The problem has been that research designs have ignored or failed to adequately treat the complexity of relationships among the host of variables which are known to be operating. Many powerful moderating

variables are ignored and point in time measurements fail to uncover important trend changes which do occur. Likert and Bowers call attention to seven types of variables which have tended to cause contradictory results:

1. discrepancy between a leader's report of his behavior and his actual behavior;
2. the values, expectations, and skills of subordinates;
3. manager's capacity to exercise influence upward;
4. size of the work unit or firm;
5. the kind of work being done;
6. time and changes over time;
7. inaccurate or inadequate measurements of criterion variables, such as, productivity and earnings.

(Likert and Bowers, 1969, p. 585)

The authors emphasize trends over time and suggest that data are available (Likert, 1967, ch. 5) which show that there are consistent, dependable relationships among leadership, motivation, and performance variables. The final section of this chapter briefly reviews and comments on some of the studies supporting this contention.

For the present we need to consider Likert's second major formulation, his emphasis on human resource accounting. This concept holds promise of being a refreshing and effective way to diagnose the status of an organization's health. Of equal importance, it fills a definite void in current accounting practices. Likert and Bowers rightfully

contend that typical accounting reports yield grossly misleading pictures of a firm's actual assets because the firm's human resources are almost totally ignored. Such elusive qualities as loyalty, professional reputation, and most of all its human organization are rarely taken into account.

The value of the human organization is estimated to be about fifteen times earnings, a sizeable sum indeed. They base their calculation on estimates of top managers of several firms who state that rebuilding their human organization to its present capability would cost from two to ten times their annual payroll. Likert and Bowers use three times payroll as a conservative and representative estimate for rebuilding. Since payrolls usually exceed earnings by from another two to ten times, they use five as a reasonable estimate. Therefore, human resources at three times payroll and payroll at five times earnings yield a product of fifteen. This figure seems somewhat less imposing when one notes that organizations seldom lose their entire human organization at once, and those who remain can sometimes help minimize the impact of a few departures by covering for them. Nevertheless, the point that human resources are a valuable asset and are not adequately accounted for is an important one.

Likert and Bowers also strike a clear note when they charge that ignoring all forms of human resources, as at present, often shows a favorable earnings picture for several years when the actual and true value of a company are steadily decreasing by a substantial fraction. This kind of shortsightedness is far too prevalent, and in many cases

things must progress to a sorry and sometime irreparable state before drastic action is taken.

If, as the authors predict, they can develop procedures for estimating the actual costs incurred in such areas as recruiting, selecting, training, establishing effective working relationships with others in the organization, and computing personnel replacement costs, valuable insights into operating problems of organizations will be available so that the organization's human assets can be accounted for. Likert and Bowers indicate that their procedures will be available in five to ten years, and that these will help to unravel the complexity which shrouds cause and effect relationships. When this occurs, such causal variables as leadership style and such end-result variables as financial performance will be more consistently and dependably linked. If they are successful, the payoff will be worth the effort. Many so called hard-headed businessmen have difficulty grasping issues that are not directly definable in dollars and cents.

In the present study variables developed originally by Likert, then further refined by him and by Bowers and his colleagues at the Institute for Social Research, are used to study the effectiveness of a nonprofit organization. The assumption is that many of the prescriptions made for industrial applications will hold for volunteer organizations as well. Our task is to determine how accurate this assumption is in the present application.

Likert's principle of supportive relationships permeates the operationalized aspects of his theory, and is found in both his 1961

and 1967 statements of the organizational characteristics of different management systems. He distinguishes between authoritative and participative management systems by postulating a continuum of four such systems. These are: (1) exploitive authoritative, (2) benevolent authoritative, (3) consultative, and (4) participative group. Basically, a System 1, benevolent authoritative type organization corresponds to one which operates under Theory X principles. System 4, participative group, corresponds to Theory Y, and 2 and 3 are the in-betweens. Each system is specified in terms of its behavioral characteristics. For instance, with respect to goal setting practices: in System 1 orders are issued, in 2 an opportunity to comment may or may not exist, in 3 goals are set or orders are issued after discussion with subordinates of both problems and planned action, and in System 4 except in emergencies, goals are usually set by group participation.

The participative group management system, System 4, is characterized by the full use of major motives, cooperative attitudes, high satisfaction, open communications, accurate perceptions and information, teamwork, acceptance of goals, high productivity, low turnover, and similar phenomena. A sample of these characteristics and comparable items for Systems 1, 2, and 3 are listed in the Profile of Organizational Characteristics, Appendix B. Note too that quite similar variables are subsumed by James Taylor and David Bowers in their Survey of Organizations, which has also been modified for use in the present study and may be examined in Appendix A.

There is growing evidence from field studies (Wood, 1970) that

the organizational characteristics described by Likert in his participative management approach are indeed related to desirable outcomes for diverse types of organizations. However, all of the variables, their multiple causes, situational effects, individual differences, and interaction effects have not yet been thoroughly investigated. More data are needed from both field and laboratory studies before precise relationships and general principles can be specified with confidence.

POWER SHARING AND PARTICIPATION

Wood (1970) has contributed significantly to our knowledge of an important aspect of the human relations movement by examining power sharing and participation in decision making groups.

It had long been implied that power and influence in an organization are a fixed quantity. If a manager or supervisor shared his decision making with subordinates, there would be less for him. Tannenbaum (1969) challenged this view, arguing that both intragroup power and the total amount of organizational power are variable. Moreover, management practices can be used to expand the amount of influence, and this can be shared by all.

Wood (1970) investigated Tannenbaum's contentions by testing two power distribution issues in a laboratory setting using decision making groups. He examined: (1) the effects of subordinate participation and situational tasks on perceived influence distributions, and (2) relationships between participation and influence outcomes and individual satisfaction. He found that full subordinate participation

resulted in the greatest levels of both subordinate and total group influence, while, according to subordinates, the leader's influence was not affected. Furthermore, satisfaction was highest when participation was complete, rather than when restricted to a particular stage of the decision making process.

This brief and overly simplified account does an injustice to Wood, Tannenbaum, and the issues involved. However, there is no reason to restate what has already been stated quite well and readers are directed to the works of these two authors. Wood's dissertation in particular, deals with many of the theoretical issues related to the entire human relations movement and is strongly recommended to those interested in a more detailed account and broader perspective than found in the present study.

CRITICISMS AND GENERAL RESEARCH FINDINGS

Critics of the human relations approach generally do not seek to refute the theory or to counter the evidence supporting it. Rather, they suggest that it is essentially correct, but somewhat insufficient to account for all of the variables operating within complex organizations. They warn that we must be cautious in rushing to embrace the appeal of dealing with organizations strictly in human terms, lest we discard some still useful rational concepts in the process and also fail to look for additional important variables.

Leavitt makes precisely this arguement in a penetrating article (1962, 1969) on the subject. Referring to studies in the 1940s and

1950s, he admits that:

> A large amount of evidence was accumulated revealing that people support what they help to create; that democratically run groups develop greater loyalty and cohesiveness...; and that strong identification with and commitment to decisions are generated by honest participation in the planning of those decisions.
>
> (Leavitt, 1969, p. 449)

These advantages are important. However, as Leavitt indicates they do not tell the whole story. Nothing has been said of the quality of decisions made by group processes, of the potential advantages of competition, of the appropriateness of authoritarian leadership in specific situations, or of the desirability of differentiating organizations into subunits according to the functional demands and constraints impinging on them. Furthermore, it seems obvious that not everyone wants to, or should, participate in all decisions at all times. Nor does everyone want to have his job enlarged or enriched to make it more interesting or more responsible. And finally, as mentioned earlier, economic motivation may tend to be seriously underemphasized (Strauss, 1963; Opsahl and Dunnette, 1966) in the human relations approach.

Among the many problems still in need of investigation is that of the effects of human relations principles on different classes and levels of workers. For example, Tannenbaum (1969) reports that a study of thirty automobile dealerships did not reveal any relationship between criteria of effectiveness and total amount of control within the dealership as reported by salesmen. Here, control means determining or

intentionally affecting what another will do, and is essentially power or influence sharing. Perhaps in highly competitive, each-man-for-himself situations cooperative and participative systems will not always work. Likert suggests (1967) however, that this need not be so in sales, and that the best sales strategy is to develop a situation wherein cooperation is fostered and rewarded. The question then is where should the limits be set? Where will the human relations approach work best?

Edgar Schein focuses on the problem of differing member needs at various levels in an organization. He points out (1965) that higher order needs for autonomy and self-actualization are more evident in the upper levels of management or for professionals, and it is not at all clear how characteristic they are of lower-level organization members.

Quite recently Campbell and his associates (1970) reviewed some of these problems and noted that managers can and do reward their subordinates by allowing them to share in decision making, and that indiscriminant sharing is, therefore, not always desirable or appropriate. Furthermore, members may regard participation as unwarranted interference with their other activities, may utilize discussion periods for irrelevant or even destructive purposes, and may find that participation obscures individual contributions rather than highlighting them.

Still another problem concerns the appropriate stage of development for introducing participative practices in an organization. Experience indicates that members of an organization who are new, inept, or unsure of themselves, often prefer and expect strong leadership at the start. Eventually they learn what to do and how to do it, thereby

qualifying to participate and becoming progressively more eager to demonstrate their ability. And as Fiedler suggests (1965, 1969), different leadership styles may work best in different types of situations. For instance, participation would likely have different implications and parameters in a military unit than in a volunteer, social, or religious group. The expectations of the members would be quite different in such instances. The foregoing uncertainty makes it seem appropriate to underscore what was said earlier by again observing that there is considerable room for both field studies and laboratory investigations of the many variables operating under the human relations banner. We must have more of both types of research before the limitations and usefulness of the approach are firmly established.

Although there are many unknown relationships in the maze of both organizational effectiveness and human relations variables, some progress is being made in unraveling them. Reviews of research and conceptual studies dealing with relevant variables may be consulted to examine the nature of that evidence which is available. In particular, Wood's dissertation (1970) dealing with power distribution and decision making; Yuchtman's dissertation on organizational effectiveness (1966); Korman's review of consideration, initiating structure, and organizational criteria (1966, 1969); Lowin's review of participative decision making (1968); Korman's recent suggestions for an integrated theory (1971); and several texts, including Campbell et al. (1970), Vroom (1964), Porter and Lawler (1968), and Likert (1961, 1967); all deal with variables related to the present study. Even so, directly relevant

empirical research is comparatively small considering "the far-reaching implications prescribed for these variables by many writers" (Campbell et al., 1970).

The classic experiment relating managerial style to productivity is that of Lewin, Lippitt, and White (1939) which compared the effects of autocratic, democratic, and laissez faire leadership on the group productivity of eleven-year-old boys. As Sales notes (1966), the productivity of democratic and autocratic groups is extremely difficult to establish in this study. In general, the subjectively stated results tended to favor the democratic leadership condition (Vroom, 1960). Although the autocratic system tended to produce higher quantity, the democratic groups produced superior quality (Hare, 1962). More interestingly, the democratic groups tended to continue working after the leader left the room, while the autocratic groups eased off. The specific results of this study are not as important as the early demonstration it made that there may be a correlation between leadership style and productivity, and that this can be studied in laboratory settings.

In another celebrated and somewhat more relevant research study, Coch and French (1948) reported on the experience of a major pajama manufacturing company. The Harwood Company introduced a participation approach to gain acceptance of new production methods for female pajama makers. Four groups were formed and were observed for one month. One experimental group of thirteen folders selected operators from their ranks for training in the new method. These "representative participation" members suggested changes on behalf of their constituents

and explained the newly learned method to them. Two other groups of seven and eight members totally participated in designing the new methods. And a fourth group, a control group of eighteen members, had changes explained to them by management, while having no opportunity to participate.

Within forty days of the changeover 17 per cent of the control group quit. They showed marked aggression against management and their productivity failed to improve. In the representative participation group there was no turnover. Only one act of aggression occurred and productivity improved slightly. Productivity in the total participation groups increased in the hypothesized direction by 14 per cent. Again, there was no turnover and employee attitudes toward supervisors were reported to be congenial.

As Wood notes (1970), the Harwood study is open to criticism on several methodological grounds, including low internal validity (Campbell and Stanley, 1963) due to subject attrition, and nonequivalence of experimental groups. Nevertheless, it is another classic in this field and even though its generalizability is restricted to females working on piece-rate payment schedules, it suggests broader applicability and has stimulated subsequent research.

More importantly, the experience of the Harwood Company has subsequently provided a rare longitudinal example of the effects of participation on productivity and attitudes. The participative management approach continues to be applied within the organization, and its success is reported periodically (French et al., 1958; Marrow et al.,

1967; Seashore and Bowers, 1970).

In general the results are favorable, even though quite mixed. Marrow reports, for example, that in a newly acquired subsidiary, the Weldon Company, the Harwood plan was installed along with a number of other changes, including incentive pay, job training, unionization, and an earnings development program. After two years, performance improved 30 per cent, but by the authors' estimate 11 per cent is attributable to the earnings program, 5 per cent to personnel changes, 5 per cent to training, and only 3 per cent to participative decision making.

Seashore and Bowers (1970) recently reported a follow-up evaluation of the Harwood-Weldon merger. They compared the results of job attitude measurements made in 1962 before the participative management program began, with those made in 1964 at the conclusion of the formal change, and finally those made in 1969, four and one half years later. They found that earlier gains in the favorability of employee attitudes had been maintained or that there were additional improvements. This holds for seven of the nine attitudinal measures used. In addition to satisfaction about the organization and the work situation, productivity concerns and task orientation were also studied. Five of the indicators used reflect an increase starting from the end of the formal change program, while others are indeterminate. None are negative. Unfortunately, measured productivity data are not given, "for technical reasons." The authors estimated that productivity was essentially stable, with a slight recent decline caused by new inexperienced personnel.

Data relating to the control exercised by lower rank people show a moderate improvement for supervisors and for the New York headquarters staff, with less concentration in the hands of the plant manager. However, at the lowest level, where the change program was explicitly aimed, there is virtually no improvement for operator employees. The authors do not thoroughly explain this result, but suggest that a reduction in the plant manager's control and more control at the lower supervisory levels is a moderate gain in the right direction.

Another problem is that it is difficult to sort out from the composit of change agents in the study those which have led to desired improvements. The attention paid to employees of the organization and the popularity of the research could well have produced a "Hawthorne effect". The authors seem to think not and point to the eight years involved as being a rather long time for such an effect to be operating. On the other hand, if half the employees "were not on the scene" at the outset, the attention and acclaim are somewhat more recent for them, and a Hawthorne effect cannot be discounted.

In sum, a longitudinal study of this type is both rare and important, and would be helpful if tried in a number of other organizations. Certainly, tighter methodological controls would be welcome. Then too, if it can be shown that the Hawthorne effect can be induced for more than five years, it may prove to be a useful motivating technique in its own right. Perhaps sheer attention paid to members is an overlooked need in organizations.

Another of the early attempts to apply some Theory Y and System

4 type principles to an organization was the "Scanlon Plan" originated by J. N. Scanlon (1948) and subsequently adopted and modified by a number of others (Kurlee, 1955; Lesieur, 1958; Schultz, 1951; and Whyte, 1955). In this plan individual rewards are tied to plant-wide performance, and intraorganizational conflict is assumed to be minimized by a general striving for the common good. Whyte has reported favorable outcomes in two instances of such plans, including 68 per cent productivity increases and nearly 40 per cent decreases in absenteeism, grievances, and turnover rates. But as Wood observes (1970), causal elements in the Scanlon Plan are difficult to identify because they are a mixture of economic rewards and power distribution.

Supervisory style was manipulated in an important field study by Morse and Reimer (1956), and the investigation was later replicated in part by Campion (1968) in a laboratory setting. In the field study, parallel groups in an insurance company were given either highly structured authoritative leadership, called the hierarchical program, or democratic power sharing at the rank-and-file level, the autonomy program. It was found that questionnaire measures of satisfaction increased for those in the autonomy program, but decreased for those in the hierarchical, while productivity increased for both groups, although slightly more for the hierarchical. The latter also demonstrated lower costs and greater efficiency by deciding on a reduction in staff, a reduction that those in the autonomy program were unwilling to make. Likert (1961) and others suggest that the performance of the hierarchical group would eventually have dropped had the experiment continued substantially beyond its one

year period.

Campbell et al. (1970) report that Campion (1968) found no significant differences between the groups in his business game experiment which, as noted above, used similar leadership to that in the Morse and Reimer study. Later on, when groups were divided by perceived influence in decision making, those low on authoritarianism and high on need for independence performed better under participative supervision, and the reverse. These findings confirm those of Vroom (1960), which were made on employees of a package delivery firm.

In his summary of participative decision making research (PDM) Lowin (1968) questions the validity of generalizing findings from the United States to foreign cultures, or to different sub-cultures within the United States. He believes that attitudes, expectations, and motive structures may differ across cultures, perhaps making success in one climate a failure in another. He also cites several examples of studies both in nonorganizational and in organizational settings, and concludes that observational studies in the latter generally support the PDM hypothesis. For instance, Lowin notes high productivity correlated with supervisory style (Katz et al., 1950), a negative relationship between perceived PDM and turnover of telephone operators (Wickert, 1951), and substantial positive correlations between various effectiveness criteria and perceived delegation of authority in a military setting (Campbell, 1956). On the other hand, Lowin mentions many "problematic reports" which are not negative, but do not confirm the PDM hypothesis either. In particular he states that a number of studies employing the Ohio State

concept of initiating structure "support the view that close supervision by a well-informed supervisor can prove effective".

Lowin concludes that although studies in organizational settings generally confirm the effectiveness of PDM, those in nonorganizational settings do not, and extrapolation from them can be dangerous. Furthermore, "any simplistic PDM hypothesis is too gross to be proven or disproven." According to Lowin, future research should focus on mediating and environmental variables to determine the parameters of PDM effectiveness.

Lowin's review is a cogent and succinct treatment of participative decision making research, research which forms a large part of the human relations movement, but is not synonymous with it. In the present study our concern is with a sampling of human relations variables, including PDM, which are believed to be associated with effective organizations. In particular, we are interested in the variables found in the research questionnaires developed at the Institute for Social Research (ISR) by James Taylor and David Bowers, and with those in Rensis Likert's publications from the same institution. The research and theories already cited in this chapter provide the necessary background to place the work of ISR researchers in perspective. A few more examples will bring our review into still sharper focus and will help to complete the picture.

The relationship between attitudes and performance has been a somewhat controversial and troublesome aspect of the literature on motivation and work. It is an area indirectly tied to the subject matter of this report and should be mentioned briefly before describing the

specific hypotheses and methodology at hand. In 1955 Brayfield and Crockett questioned some ingrained assumptions by stating that there is little evidence in the literature to indicate an appreciable direct relationship between attitudes and performance. They did admit that attitudes seem to be related to absenteeism and turnover. In retrospect, it seems that their conclusions and implications would have been a bit more acceptable if stated less strongly. There seems little doubt that complex causal, intervening, and moderator variables affect whatever relationship exists between attitudes and performance. Therefore, the absence of a simple direct relationship should not have been so surprising. Moreover, subsequent data confirm the existence of a relationship. Lawler and Porter (1967) report that both Herzberg (1957) and Vroom (1964) found that positive attitudes are favorable to increased productivity. But the relationship is indeed complex and correlations are not high. Lawler and Porter suggest a comprehensive theoretical model wherein performance produces rewards and rewards lead to satisfaction; rather than the traditional view that satisfaction leads to high performance.

In the present research, a positive relationship between member attitudes and performance is implied. However, the direction of cause and effect cannot be demonstrated. Democratic leadership may foster higher performance, or good performance may lead to more democratic leadership, or more likely, the two may be reciprocal.

This is not an attempt to resolve that issue. The present concern is with trying to determine which types of variables and responses to

questionnaire items predict superior performance in the Mid-Ohio Health Planning Federation, whatever the direction of causality. Hopefully, an understanding of the general types of variables thought to be operating can be better appreciated by reviewing the contents of this chapter. In the following section more directly relevant research to the problem at hand is presented from the work of scientists associated with the Institute of Social Research at the University of Michigan. We turn now to their research evidence.

A STUDY OF THE LEAGUE OF WOMEN VOTERS

The research most relevant to the present study is reported by Likert (1961) and by Tannenbaum (1958, 1968). It concerns the organizational effectiveness of a volunteer organization, The League of Women Voters, which had problems similar to those of the Mid-Ohio Health Planning Federation. In general, League officials were interested in knowing whether or not the same principles of leadership and organizational development which yield the best results in industry would apply equally as well in their volunteer organization. Likert responds to this question with an emphatic yes! He states that "...when the economic motive is not present in an organization, the manner in which the other motives function stand out much more clearly" (Likert, 1961, p. 140).

Of more specific concern was the problem of defining organizational effectiveness and finding suitable methods for measuring it. According to Jane Likert's booklet about the study (1958) and as noted

in Rensis Likert's account (1961), League effectiveness was defined as "the extent to which a League accomplishes its goals." After selecting this definition, a rating technique was used to determine how well local Leagues were performing. Twenty-nine knowledgeable raters were asked to judge a representative sample of 104 Leagues on the following criteria: (1) size of League in relation to size of community, (2) growth, (3) the quality and quantity of League materials, (4) level of member participation, (5) members' knowledge of and interest in League activities, (6) success in fund-raising, and (7) effect on their community. The inter-rater reliability coefficient for the 29 raters was 0.82, which demonstrates good agreement among them.

An independent and pragmatic test of League performance was used to verify the above judgemental ratings. A survey questionnaire was mailed to about 3,000 members in the 104 Leagues. It was hypothesized that Leagues rated as being more effective would be more likely to return their questionnaires, and would do so with less follow-up prodding than would ineffective Leagues. Tannenbaum reports (1968) that 49.7 per cent of the questionnaires were returned prior to follow-up, and that the correlation between effectiveness and rate of returns is 0.33 which is statistically significant beyond the .001 level of confidence. After follow-up procedures, this correlation shrank, as it was expected to, dropping to 0.24, still above the significant level. It was concluded that effective Leagues demonstrated a higher response rate than ineffective ones, and that this provides evidence supporting the validity of the judgemental ratings.

Among the more interesting findings and conclusions of the report are the following.

1. On the average the presidents of effective Leagues exerted no more influence than did those of ineffective Leagues.
2. There was a marked relationship between member influence, as seen by them, and League effectiveness. Members in effective Leagues felt that they had more influence.
3. The amount of influence that Board members felt other members should have seemed to help determine the actual amount that they did have.
4. In more effective Leagues, the members were kept better informed.
5. Interest in member ideas by the president, Board members, and other members was related to both League effectiveness and member activity.
6. At about 400 members, Leagues ceased to grow in effectiveness with increasing size, and above 400 their effectiveness per member and member activity decreased.
7. The more face-to-face contact and discussion there was between leaders and members of local Leagues, the greater the feeling of influence held by members.

8. Experience indicates that the optimum size of units in local Leagues, of boards, and resource committees is about 15 to 20 members.
9. The presidents of effective Leagues attended more to creating high levels of communication and interaction, to achieving a high level of interactional skill, to creating a positive value for high performance, and to encouraging the setting of important and worthwhile objectives.
10. Members tended to react negatively to pressure from the president and the Board, yet favorably to pressure from other members, discussion or unit leaders, and from themselves.

(Likert, 1961, pp. 141-161)

In his book about control in organizations, Tannenbaum (1968) observed another interesting finding about the League study. The effectiveness of the League was significantly related to the slope of the control curve based on member judgements, as stated in finding (2) above. In addition, the total amount of control, that is the height of the curve, was also related to effectiveness. Most interesting is his suggestion that a type of threshold seems to be implied by the data, in that both "a minimum level of total control and a degree of positive slope may be necessary for effective performance." If either fails to meet threshold, increasing the other does not seem to help. Using Tannenbaum's example, "the performance of laissez faire (low

total control) Leagues may not be much improved by making them more 'democratic' (positively sloped) without at the same time making them less laissiz faire" (Tannenbaum, 1968, p. 67).

Of the three references cited dealing with The League of Women Voters study, Tannenbaum's earlier publication (1958) is the most comprehensive and detailed. A brief summary of his findings, particularly those correlating member responses to questionnaire items with ratings of League effectiveness, are given in Table 1. In most cases Tannenbaum also provides comparative data from Board members who responded to the same questions. A complete account is in his report.

The correlations in Table 1 provide useful data against which to compare the findings of the present study. Tannenbaum's results generally support Likert's theoretical prescriptions, and seem to have influenced other researchers at the Institute for Social Research as well. A number of the questions used in the League study are similar to those found in the Survey of Organizations questionnaire. And several more were added to the modified version of the questionnaire in Appendix A, for use with Federation members.

In sum, Tannenbaum's study has found that the more effective Leagues are larger; their members think more highly of their own performance, are more loyal in the face of external opposition, exhibit greater knowledge of certain Leagues processes, and respond more quickly to a questionnaire survey than counterparts in ineffective Leagues. It was also found that member activity is related only modestly to effectiveness because, among other things, available energy

TABLE 1

SUMMARY OF SELECTED FINDINGS FROM THE LEAGUE OF WOMEN VOTERS STUDY WHICH ARE CORRELATED WITH LEAGUE EFFECTIVENESS

Problem area and finding	Correlation of finding with League effectiveness
League Size	
1. For communities of equal size effective Leagues tend to be larger.	0.42[a]
A minimum number of active members is necessary; League effectiveness depends on the level of activity of this group. The following correlations between effectiveness and member activity were found for Leagues of different sizes.	
2. under 99 members	0.52[b]
3. 100 - 199 members	-0.12
4. 200 - 399 members	-0.06
5. 400 and over	-0.40[b]
Community Impact	
6. Member perceptions of the importance of their local League to their community	0.24[a]
7. Awareness of League by influential persons in the community as perceived by members	0.33[a]
8. Awareness of League by average persons in the community as perceived by members	0.26[a]
Questionnaire Return Rate	
9. Returns before follow-up	0.33[a]
10. Returns after follow-up	0.24[a]
Quality of Member Work	
11. Caliber of job done by membership as a whole as perceived by members	0.33[a]

TABLE 1 -- Continued

Problem area and finding	Correlation of finding with League effectiveness
Loyalty	
12. Member's reactions to threat to League by opposition in the community	0.27[a]
13. Member's reactions to threat to League by disinterest of other members	0.12
Knowledge	
Member judgements of understanding of:	
14. how National League decides on its agenda	0.24[a]
15. how a national consensus is arrived at	0.18[a]
16. how a national time for action is decided upon	0.13
Allocation of Effort	
Proportion of time members spend on:	
17. voters service	-0.16
18. administrative problems and activities	0.02
19. research and study in relation to program	0.28[a]
20. taking program action	0.03
Influence	
Influence as judged by members:	
21. of local president	-0.02
22. of local Board	0.14
23. of membership as a whole	0.33[a]
Influence of presidents in four areas of League activity	
24. voters service	-0.15
25. research and study in relation to program	-0.08
26. taking program action	-0.07
27. administrative problems and activities	0.23[a]

TABLE 1 -- Continued

Problem area and finding	Correlation of finding with League effectiveness
Conflict Avoidance	
Extent to which Board members want to avoid conflict with the following groups:	
28. influential persons in the community	-0.09
29. certain other organizations in the community	-0.18[a]
30. their community or League	-0.02
31. their state	-0.22[a]
32. the National League	-0.23[a]
Group Formation (cliquishness)	
33. Members' reports of extent of persons or groups sticking together within their League	-0.19[a]
34. Members' reports of their membership in such groups	-0.03
35. Members' reports of influence of such groups in determining League policies and actions	-0.00
Members' reports of existence of groups or persons in their League with whom they would like to:	
36. be friendly	-0.30[a]
37. work together with	-0.12
Leadership	
Members' judgement of caliber of job done by:	
38. Board members	0.32[a]
39. their local president	0.18[a]
Characteristics of presidents as rated by Board members:	
40. quick to help when things go wrong	0.36[a]
41. coordinates various activities in the League	0.32[a]
42. efficient as an administrator	0.27[a]
43. understands the views and sentiments of members	0.19[a]
44. knows what she is doing	0.19[a]
45. has pleasant and friendly disposition	0.11
46. works hard for the League	0.08
47. understands the views and sentiments of other officers	0.07

TABLE 1 -- Continued

Problem area and finding	Correlation of finding with League effectiveness
48. helps members see what their League is doing	0.06
49. lets us know what others in the League are doing	0.04
50. is devoted to ideals of the League	0.03
51. gets along well with others	0.02
52. suggests to others what they should be doing	0.01
53. follows through on what she says	0.00
54. enjoys the prominence which her position in the League gives her in the community	-0.01
55. enjoys the recognition she gets in the League	-0.08
Members' rating of leader with whom she has the most contact:	
56. leader enjoys recognition	-0.30[a]
57. leader enjoys prominence	-0.22[a]
58. leader understands the views of members	0.18[a]
Demography	
Age of members (median ages of members and Board members 45.3 and 40.0 years respectively):	
59. age of members	-0.14
60. age of Board members	-0.17
Education:	
61. education of members	0.22[a]
62. education of Board members	0.03

[a] Correlations of $\pm$ 0.18 are significant

[b] Correlations of $\pm$ 0.38 are significant

Source: A. S. Tannenbaum. A study of The League of Women Voters of the United States: factors in League effectiveness. Ann Arbor, Mich.: Institute for Social Research, 1958.

must be appropriately channeled and League size has a moderating effect on the level of activity. In addition, Tannenbaum observes that although member activity alone does not seem to create effective League functioning, it is likely to help determine member influence, and such influence does correlate with effectiveness. The president can be an important influence for good or ill. She must "lead without dominating;" ... and "stimulate without pressuring." Moreover, certain characteristics of presidents have been identified as being correlates of League effectiveness.

These and other findings will be discussed in Chapter V in so far as they appear to be relevant to findings in the present study. And the results of both studies, along with other available data, will be used to formulate recommendations to the Federation for diagnostic and developmental purposes.

The next chapter describes the methodology used to analyze the data that have been collected, and describes the procedures employed to gather the data. It also takes up some of the limitations inherent in both the present research and in Tannenbaum's study.

CHAPTER IV

RESEARCH METHODS

"Problem-centered research on only one subject may, by clarifying questions, defining variables, and indicating approaches, make substantial contributions to the study of behavior."

William F. Dukes

OVERVIEW

The objectives of the present study are threefold:

1. to develop methodology for assessing the effectiveness of The Mid-Ohio Health Planning Federation;
2. to validate candidate methods for making the assessment by applying them to the Federation; and
3. to gather descriptive information about member perceptions of the organization, about their attitudes toward it, and their behavior in it.

In addition, a unifying theoretical concept, the human relations movement, has been offered as a means for generalizing from the present study to other volunteer organizations. Variables linked with the movement by its proponents are hypothesized to be correlated with the behavior of member counties of the Federation. Evidence uncovered in this study which supports the hypothesized correlations will add credibility

to the theory and indicate ways that similar organizations might study their development.

The technical approach chosen to deal with study objectives has two major components: first, the selection of meaningful performance criteria and predictor variables with which to determine organizational effectiveness; and second, a factor analysis with which to reduce the large matrix of intercorrelations among the variables to a smaller number of structured interdependencies. The four criteria used include the accomplishments of Federation counties, member ratings of county effectiveness, staff ratings of county effectiveness by the scaled expectancy method, and the return ratio of questionnaires.

Two unavoidable problems in the study tend to detract from the hypothesized relationships among predictor and criteria variables, making them somewhat more difficult to establish. First, only 17 counties constitute the sample size. Even though 244 individual responses to 160 questionnaire items comprise the data base, statistical significance is related to county performance and hence N-2, or 15, degrees of freedom must be used. Because of this a one-tailed test of significance at the .05 level requires a correlation of .412 to be statistically significant. For comparison, the opportunity to study all 88 Ohio counties would have established a much easier to achieve level of significance at .178. On behalf of small sample studies McNemar (1962) states that, "Quite frequently small samples may be useful in a preliminary study... . If given hypotheses seem to be verified, the next step should be to secure more cases for further verification... ."

One might add that statistical significance is not the same as meaningfulness. The former relates to the amount of risk one is willing to accept that his results are spurious, chance happenings. Meaningful correlations can be found in the .20 to .40 region even though statistical significance is not reached. Many such correlations would suggest construct validity and would tend to minimize the risk of spuriousness.

The second problem at hand is more difficult. It involves the unknown impact of time-related effects on the relationships among the variables of interest. This concerns both the uncertainties of working with a young organization, one still in its formative stage of development, and the classic difficulties of studying predictor and criterion relationships concurrently. For example, after an independent variable, such as a change in supervisory style, is introduced it often takes some time before whatever impact it might have is manifest by a change in performance on a dependent, criterion variable. This effect is likely to be more characteristic of accomplishments and production criteria than of attitudes and perceptions.

Both Yuchtman (1966) and Likert and Seashore (1963) are quite emphatic about the importance of time considerations. The latter suggesting that a lag of about two years occurs in industrial situations between the introduction of an important change and the manifestation of stable results in production criteria. Ideally, it is best to gather data and make predictions at the outset, put these away for a year or two and then collect criteria measures. But practical considerations

make the ideal a rarity and most correlational studies are of the concurrent validity type.

Even though the recommended goal-centered approach implies that county accomplishments are to be the ultimate proof of organizational effectiveness, solely relying on them at this stage of the Federation's development is unwise. The likelihood of encountering time-lag effects coupled with uncertainty about member commitment to the Federation suggest that it may be too early to expect strong correlations between human relations variables and county accomplishments.

Commitment, or lack of it, is partly a function of the Federation's age and partly a function of the type of ad hoc interest that some members are said to have. Digressing briefly to information from the next chapter, one finds questionnaire responses indicating that 40 per cent of the members expect to be with the Federation for only one or two more years and 30 per cent for three or four more years. These are the members who were interested enough to respond to the questionnaire! Presumably, non-respondents are even less committed.

If such tenuous commitments mean anything, they seem to suggest that many members would be likely to take changes in leadership or in other human relations variables in stride. If their interests focus largely on pet projects, as some are said to focus, they would probably continue to work hard for them come what may. Many others might decide to stick with it for the duration of their present terms and continue to perform until severing relations at the first opportunity. In either event county accomplishments would not reflect much change or

yield very impressive correlations with predictor variables. On the other hand, most members would indeed be aware of conditions, having perceptions of them and opinions about them, whatever their work commitment. These attitudes and perceptions can be tapped by questionnaire responses and should correlate with rating criteria. In sum, data about accomplishments may prove to be more valuable for comparative purposes in follow-up research two or three years from now. At the very least they afford a rough indication of what a county is achieving in comparison with similar counties. Ratings are likely to be more in touch with the current situation.

PERFORMANCE CRITERIA

COUNTY ACCOMPLISHMENTS

Accomplishments of the Federation's 17 counties have been documented in Federation records in two ways, appearing both in progress reports and in the memoranda in each county's file. At the outset of the present study all such records were examined for completeness and reliability, and records for the period January 1970 through September 1971 were subsequently used. The list of accomplishments extracted from them were modified by staff members to form the first and most basic of our performance criteria.

Modification entailed having the cognizant staff member for a given county assign a rating of 1, 2, or 3 to each line item in the tabulation, to signify the level of difficulty represented by an achievement relative to the resources available in the county. For example, devel-

oping a plan for an emergency ambulance service in one county might involve little more than approval of sharing expenses with a neighboring community for expanded service. This might be judged to involve minimal skill or effort on the part of the county council and be given a rating of 1 by the cognizant staff member. In another county, developing an ambulance service might have entailed holding special public meetings, presenting cost figures for various candidate plans, writing proposals for state or federal funding, and writing a tax levy issue for a local election. This would obviously be rated 3 and even then might be inadequate to express the magnitude of the achievement.

Eventually, the Federation can consider a more refined rating system, based on a backlog of knowledge of the difficulty involved with certain types of achievements in certain types of counties. For the present however, a summation of rated accomplishments seemed to be an acceptable method for comparing county performance. After three months test-retest reliability for county accomplishments was a very respectable .927.

QUESTIONNAIRE RETURN RATIO

This performance criterion presented both an equitable and real-world performance task to counties. Mailed questionnaires were sent to Federation members along with a cover letter which emphasized the importance of having responses returned by a specified date. The questionnaires were made long enough and difficult enough to require some thought and effort to complete. However, staff members agreed

that all questions were appropriate for reasonably active county council members to answer, and answering them should not have taken more than one or two hours. This was not considered to be an unreasonable request to make of members, who are supposed to be willing to volunteer some time to Federation activities. Tannenbaum (1958) used a similar approach and found a correlation of 0.33 between League of Women Voters effectiveness and the initial return ratio of his questionnaires.

MEMBER RATING OF EFFECTIVENESS

Question number 106 of the survey asked members to rate their group on effectiveness, group referring to all persons reporting to the same chairman. Mean scores for each county were used as the criterion values. The same mean criterion score was assigned to each member of a given county.

SCALED EXPECTANCY RATINGS

The final performance criterion used was supplemental to tabulations of accomplishments, because it focuses on dimensions of group performance which are considered by staff members to be important, yet are not readily quantifiable. In order to measure them a special rating scale was developed based on Smith and Kendall's (1963) retranslation, or scaled expectancy, technique. This required the cooperation of staff members and county council chairmen, and is thought to be the first attempt to apply the technique to group performance. The results have been encouraging. Although the scales are quite straightforward,

their construction is rather complex and requires a brief explanation.

The scaled expectancy procedure was developed by Smith and Kendall in the 1950s to provide head nurses with an unambiguous device for rating the performance of staff nurses. More recently it was used by Dunnette (1970) to rate store managers of the J. C. Penney Company. And by Olivero (1971) who compared it with a simple graphic rating scale, a behavior check list, and a rating scale then being used to rate staff nurse performance. He found it superior in terms of reliability and inter-rater agreement, and judged it to be the best of the methods studied.

The original Smith and Kendall study reported the following exceedingly high scale reliabilities: Knowledge and Judgement, .972; Conscientiousness, .991; Skill in Human Relationships, .986; Organizational Ability, .987; and Observational Ability, .982. These are considerably higher than the mean test-retest reliabilities reported by Olivero (1971), who also used the Smith and Kendall scales. He found mean scale correlations of .64, .54, .72, and .74 across all five scale dimensions for the following four rater groups: supervisors, peers, self, and subordinates.

Scales developed in the present study were used by staff members to rate group performance. After three months, test-retest reliability was .647, which is nearly identical with Olivero's finding for supervisor ratings of individual nurses. Although .647 is far below the cited Smith and Kendall reliabilities, it is considered to be adequate for present purposes. Furthermore, it seems quite likely that additional refinement

of the Federation scales would lead to both higher reliability and greater discrimination power.

The central idea in developing the scales is to anchor them by using statements of expected behavior, called critical incidents. These are based on having observed similar behavior in various situations associated with the performance being considered. If, for example, a staff nurse must be conscientious, statements of the behavior of both conscientious and irresponsible nurses are used to construct scale items for this trait dimension.

In the present study scale construction proceeded as follows.

1. Federation staff members nominated general traits which they felt were important dimensions of county council performance. The most frequently nominated were selected for further analysis.
2. At a later meeting staff members were told that five trait dimensions had been selected and were asked to write critical incidents, that is, examples of both good and bad behavior which they felt represented performance under each trait dimension.
3. This provided a pool of more than twenty behavioral statements for each of the dimensions. Items in the pool were then separated from their trait dimensions and listed at random. The listing was presented to a group of county council chairmen, Federation officers, and staff members at a special meeting, and each was

asked to assign the proper trait dimension number to each behavioral statement.

4. Behavioral statements were eliminated if they were not consistently assigned to the trait dimension for which they were originally written.
5. Surviving behavioral statements were again listed under their trait dimension and were submitted to staff members for rating on a continuous scale from 1 to 9. Behavioral statements were eliminated if dispersions of judgements were large, or if the distribution was multimodal.
6. Surviving expectations were assembled for each trait dimension and mean scale positions were assigned. If a position on the scale was not represented by a behavioral statement, it was left blank.
7. Three general statements for each trait dimension were written, representing low, medium, and high descriptions, or levels of performance.

Table 2 lists the five trait dimensions selected by the Federation staff as being important characteristics of county council performance. A summation of ratings across the five dimensions shown in Table 2 was used as one of the criterion measures in this study. Appendix C contains both the full set of rating scales and inter-scale reliability correlations.

TABLE 2

RATING SCALE TRAIT DIMENSIONS

1.	RELIABILITY - dependable, consistent, conscientious, accurate, thorough, efficient, marked by good record keeping
2.	MOTIVATION AND WILLINGNESS - interested, concerned, enthusiastic, willing to work, willing to accept assignments and face responsibilities, self-starting, takes initiative
3.	ORGANIZATIONAL ABILITY - magnetic ability (to draw in community and health leaders), gets and maintains good community relations, structures work and work force effectively
4.	KNOWLEDGEABILITY - knows community and CHP process, diagnostic and self-appraisal ability, able to conduct surveys and research information
5.	OPEN AND DEMOCRATIC - receptive to ideas and to others, resilient, cooperates with staff and other groups, not afraid of controversy, skillful in human relations, elicits participation, sensitive, cohesive

The scaled expectancy rating technique has been called the re-translation process because different groups should be used to generate trait dimensions and critical incident items, to match behavioral statements with traits, and to assign scale numbers. The process is somewhat analagous to translating a foreign language. The term scaled expectancy is also appropriate because the behavioral statements, or critical incidents, which are used need not represent the actual behavior of the individual or group being rated. They represent levels of performance that the rater would expect the rated group to exhibit should the situation arise.

The scales in Appendix C have been used to rate county council performance, and similar scales can be developed to rate staff member performance, if they are wanted. The need to do so is not very apparent in the Federation because of its small staff size and the closeness of supervisors to staff member performance and problems.

In sum, four types of performance criteria have been selected: (1) a tabulation of county accomplishments, (2) scaled expectancy rating scales, (3) a questionnaire return ratio, and (4) member ratings of group effectiveness. These are not intended to measure exactly the same performance and should not correlate identically with one another. On the other hand, a substantial correlation between the two rating criteria is indicated because member ratings and staff ratings of county effectiveness are very similar. The most dissimilar criterion is the return ratio. Members of a high achieving county may or may not return questionnaires promptly, this being a somewhat dissimilar type of performance task, and criteria one, accomplishments, and three, returns, would probably not correlate quite as well. These expectations are precisely the results obtained. Table 3 indicates the product-moment correlations for the performance criteria.

TABLE 3

CORRELATIONS AMONG THE FOUR PERFORMANCE CRITERIA

	Accomplishments	Questionnaire return ratio	Scaled expectancy rating
Member rating	.346	.302	.864
Accomplishments		.195	.520
Questionnaire return ratio			.266

SURVEY INSTRUMENTS

THE SURVEY OF ORGANIZATIONS

More than twenty years of research experience at the University of Michigan's Institute for Social Research (ISR) have helped to produce an outstanding survey questionnaire for use in a wide range of organizations. The Survey of Organizations (Taylor and Bowers, 1970) is a standardized instrument designed to provide comprehensive, yet parsimonious coverage of 19 basic elements in organizational behavior. The core questionnaire of nearly 60 questions is said to be based on "the most valid, reliable, and efficient single items and variables for measuring" particular concepts or constructs. Table 4 is adapted from the survey manual. It lists the major areas, primary variables, and source references subsumed by the questionnaire. Taylor and Bowers report internal consistency reliability in the .80s and .90s for all 19 of the basic indices of organizational behavior in Table 4 except for Peer Goal Emphasis at .70 and Motivation at .79.

The four leadership dimensions in Table 4 are discussed in an article by Bowers and Seashore (1966, 1969) and have been defined as follows:

1. Support. Behavior that enhances someone else's feeling of personal worth and importance.

2. Interaction Facilitation. Behavior that encourages members of the group to develop close, mutually satisfying relationships.

3. Goal Emphasis. Behavior that stimulates an enthusiasm for meeting the group's goal or achieving excellent performance.

TABLE 4

SURVEY OF ORGANIZATIONS: PRIMARY VARIABLES

Leadership[a]	1. Managerial Support
	2. Managerial Goal Emphasis
	3. Managerial Work Facilitation
	4. Managerial Interaction Facilitation
	5. Peer Support
	6. Peer Goal Emphasis
	7. Peer Work Facilitation
	8. Peer Interaction Facilitation
Organizational Climate	9. Communication within Company[b]
	10. Motivation[b]
	11. Decision-making[b]
	12. Control within Company[c]
	13. Coordination between Departments[d]
	14. General Management[b]
Satisfaction[e]	15. Satisfaction with Company
	16. Satisfaction with Supervisor
	17. Satisfaction with Job
	18. Satisfaction with Pay
	19. Satisfaction with work Group
Other Items[b,f]	(summarizing what Likert 1961, 1967 felt were prime derivations of the primary variables for organizational behavior)
	20. Responsibility for Company Success
	21. Loyalty towards Company and Work Group
	22. Trust and Confidence in Supervisor and Work Group
Miscellaneous Items	23. Demographic Characteristics
	24. Perceived Work Group Effectiveness
	25. Supervisory Needs

[a] Under leadership all variables are from Bowers, D. G., and Seashore, S. E. Predicting organizational effectiveness with a four-factor

4. Work Facilitation. Behavior that helps achieve goal attainment by such activities as scheduling, coordinating, planning, and by providing resources such as tools, materials, and technical knowledge.

(Bowers and Seashore 1966, 1969)

According to the authors, the research studies that they analyzed indicated that the basic components of leadership could be described in terms of these four dimensions. In the present study both a subtest analysis and a factor analysis were used to determine the structural properties of questionnaire items. Results are reported in the next chapter.

The types of variables listed in Table 4 are obviously related to the human relations movement, and just as obviously have been strongly influenced by Rensis Likert, a leader of the movement. This tends to

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theory of leadership. Administrative Science Quarterly, 1966, 11, 238-263.

[b] Likert, R. New Patterns of Management. New York: McGraw-Hill, 1961.

[c] Tannenbaum, A. S. Control in Organizations. New York: McGraw-Hill, 1968.

[d] Georgopoulos, B., and Mann, F. C. The Community General Hospital. New York: Macmillan, 1962. (Especially Chapters 6 & 7)

[e] Kahn, R. L., and Morse, N. C. The relationship of productivity to morale. Journal of Social Issues, 1951, 7, 8-17.

[f] Likert, R. The Human Organization. New York: McGraw-Hill, 1967.

Source: Taylor, J. C., and Bowers, D. G. The Survey of Organizations: toward a machine-scored, standardized questionnaire instrument. Ann Arbor: The Institute for Social Research, The University of Michigan, 1970, pp. 3-4.

make the Survey of Organizations generally well suited for the present research, and therefore it has been chosen as the primary survey instrument. Counting the 60 core questions plus those in other categories, the 1969 edition of the Survey lists 111 questions, the first 6 of which are devoted to the instructions. Unfortunately, a number of questions deal with such topics as pay and promotions and were not relevant for volunteers. Subsequent modifications resulted in keeping 77 questions essentially as written in the Survey, adding 20 from The League of Women Voters study for comparative purposes, and generating 63 specifically for the Federation.

The new total, 160 questions, changed the survey sufficiently to warrant using a different title for identification. Hence, The Mid-Ohio Health Planning Federation Survey Questionnaire - Form A was born. Of course, full credit and acknowledgement for the questionnaire belongs to Taylor and Bowers at ISR, who generously allowed us to adapt it to present needs. Permission to use any version or further adaptation of the instrument, regardless of its identifying label, must be asked of them.

THE PROFILE OF ORGANIZATIONAL CHARACTERISTICS

A second and shorter questionnaire, the Profile of Organizational Characteristics - Form S, was also used in the present study. It offers a condensed version of a series of longer questionnaires published by Likert at ISR. It specifically deals with the variables that he believes contribute to organizational effectiveness, and relates them to the four

systems of management described in his more recent publication (1967). Fortunately, it required only minor modifications in the present application.

Form S has eighteen response items spread among these six organizational variables: (1) leadership, (2) motivation, (3) communication, (4) decisions, (5) goals, and (6) control (see Appendix B). Internal consistency reliability measures are reported by Likert (1967) for all items used in the Profile of Organizations. Correlation coefficients between an item and the total score are all greater than .73, and the correlation between the sum of odd- and the sum of even-numbered questions is .97. He also reported that factor analysis yielded one dominant factor with which the total score correlated 1.00.

There were three main reasons for using the Profile. First, the present research is concerned with developing methodology for assessing organizational effectiveness, and the Profile may be quite useful as a shorter and more easily administered diagnostic tool than the Survey. Second, the Profile is a more direct test of Likert's prescriptions as he has stated them. And third, the Profile uses a format which provides both a quick reference to indicate the dominant management system in an organization, and an illustration of trends toward or away from the existing system.

Good reasons notwithstanding, it was felt that adding the Profile to the rather long Survey questionnaire might be too much of a burden for Federation members, many of whom could see little benefit in either of them. A tradeoff decision was made to risk sacrificing some returns

and to use both instruments on at least a portion of the members. This resulted in administering both the Survey and the Profile to all county council officers, including trustees and Board members, but excluding the county council chairmen. The latter were omitted from the survey because many of the questions in both questionnaires concerned the behavior of chairmen as seen by their members, and the alternative was to use a different instrument, such as the Leadership Opinion Questionnaire (LOQ), which promised to add little to the outcome (Korman, 1966). Fortunately, sufficient Profile returns were gathered to provide adequate comparative data. The actual return ratios for both the Profile and the Survey are given in Chapter V.

THE JOB DESCRIPTION INDEX (JDI)

Both the Profile of Organizational Characteristics - Form S and another instrument, the Job Description Index (JDI), were administered to the Federation's professional staff in October 1971. Strictly speaking, this exercise was not part of the central research issue and the results are reported separately to those concerned. Nevertheless, the JDI is of interest as a potential diagnostic tool for use in other B agencies and, therefore, warrants brief mention.

The JDI is a deceptively uncomplicated looking instrument and is quite easy to administer and score. In the application noted above, it correlated 0.55 with the Profile of Organizational Characteristics and was statistically significant at the .05 level, based on an N of 15.

Taking note of the research involved in developing the JDI, Vroom

stated (1964) that Patricia Smith and her associates "have recently completed an impressive program of research on the measurement of job satisfaction. The product of this research, an instrument called the Job Description Index, is without doubt the most carefully constructed measure of job satisfaction in existence today." He also noted that the JDI was based on data from 2500 workers and 1000 retirees in 21 different plants. And he predicted that its careful methodology and extensive norms would lead to its widespread use.

Vroom's endorsement is impressive and the JDI does appear to be a sound instrument. In their recent text, Smith, Kendall, and Hulin (1969) provide Spearman-Brown corrected internal consistency correlations ranging from 0.80 to 0.88 for the JDI's five scales. And they cite numerous correlations above 0.70 and 0.80 between the JDI and other measures of satisfaction. It should be noted here that the Profile of Organizational Characteristics - Form S describes conditions in terms of six variables which are believed to be meaningful to organizational effectiveness. Hence, it is not a direct measure of satisfaction and would not be expected to correlate as highly with the JDI as would measures of job satisfaction.

Smith and her colleagues also provide several types of validity data, using such criteria as performance ratings and salary level, and report correlations ranging from 0.26 to 0.59.

The five scales comprising the JDI are listed in Appendix D. Readers interested in learning more about this instrument are advised to read the Smith, Kendall, and Hulin text (1969).

DATA FROM OTHER B AGENCIES

During the planning phase of the present study a question was posed concerning the generality of the Mid-Ohio Health Planning Federation's recognized need to develop systematic methodology for evaluating its development and effectiveness. Did not other agencies in Ohio and in other states have similar problems? And, if so, did they recognize the importance of the problems? Even more importantly, were they doing anything about them? It was hoped that this study could benefit from the experiences of other agencies and that, in turn, the research experience developed in the project could be shared with them. Subjective estimates were that communications among B agencies were spotty and infrequent. It was finally decided to contact all of the other ten B agencies in Ohio, plus a sample of twelve from various geographic regions and types of communities nationally. There was no official endorsement of this action and, of course, no obligation in connection with it. Correspondents were asked about three major problem areas.

1. The selection, training, and performance of members. How are members selected? What qualifications should and do they have? How is their performance assessed? How are they trained for and indoctrinated into the organization? And how does the performance or contribution of providers compare with that of consumers?
2. Performance criteria. What types of criteria and measurement techniques are used for judging organizational

and member effectiveness? Are rating scales or questionnaires used? How are member satisfaction and morale measured? Are the criteria different for different levels and subunits within the organization? How is the performance of the salaried staff measured?

3. Research activities. Are any research efforts being conducted or have any been conducted concerning organizational development and similar problems? Is a specific strategy, rationale, or theory of organizational development followed?

In the national sample agencies in the following cities were contacted: (1) Atlanta, Georgia, (2) Baltimore, Maryland, (3) Des Moines, Iowa, (4) Madison, Wisconsin, (5) Miami, Florida, (6) New Orleans, Louisiana, (7) Newton, Massachusetts, (8) New York, New York, (9) San Diego, California, (10) San Francisco, California, (11) Seattle, Washington, and (12) Syracuse, New York. Seven of these twelve responded to the inquiry, generally expressing keen interest in the cited problems. Nearly all mentioned the difficulty involved in trying to resolve them, and a few had started research in one or more of the problem areas.

In Ohio, only four agencies responded. The reasons for this are not clear since nearby agencies are presumed better able to cooperate with one another and, if anything, would likely have more problems in common. One possibility is that larger, more resourceful, and more urban agencies, such as those in the nation-wide sample, would be

more likely to recognize and try to resolve the specified problems. Indeed, the largest of the ten other Ohio agencies, the Metropolitan Health Planning Corporation of Cleveland, an agency having twelve staff members, stated that evaluation is extremely important and expressed considerable interest in the project. So too did another respondent, the Ohio Valley Health Services Foundation (OVHS) in Athens, which has a staff of six, although it is not yet an officially accepted B agency. Subjective comments about OVHS from knowledgeable individuals characterize it as being one of the most progressive of the Ohio agencies. Interestingly, the other two respondents have small staffs, of three and four members including the executive directors, and are located in rural areas.

In the next chapter comments and data from the responding agencies are summarized. These suggest that there are a number of reasons for agencies being reluctant to take part in research projects, including lack of funds, a lack of know-how, and their sensitivity about and wish to avoid performance evaluations in general. One cannot tell from the available information how much these and perhaps still other reasons may have influenced the nonrespondents.

STRUCTURAL AND ITEM ANALYSES

SUBTEST ANALYSIS FOR INTENSIVE SCALES (SCST)

The first computer analysis conducted in the present study used a Department of Psychology program, the Subtest Analysis for Intensive Scales (SCST), to determine questionnaire item group structure. Ques-

tionnaire items were clustered into groups on an a priori basis, using the structure in Table 4 as the point of departure. In addition to descriptive statistics, the SCST program calculates item-test correlations and Kuder-Richardson Formula 8 reliability coefficients for each group. As shown in Table 5, the analysis verified that certain question groups, specified by Taylor and Bowers (1970), can be combined with those items added in the present study without seriously altering the homogeneity of the former. In other words, modifying the Survey of Organizations by changing some questions and adding others did not destroy the meaning of the specified item clusters.

Table 5 implies that each homogeneous group measures some rather unique dimension of organizational behavior. In many cases this may be true, but it is not necessarily so. Note that some of the items fit quite well in more than one group. Some overlap of dimensionality evidently occurs, but just how much has not been tested. Every item has not been grouped with all others in every possible combination. Therefore, we can only state that certain items belong where they have been placed, and cannot be certain that they do not also belong in other combinations. Additional structural information is provided by the next major step, factor analysis.

PRINCIPAL COMPONENTS FACTOR ANALYSIS

Prior to conducting a factor analysis, it was necessary to reduce the 160 items from the original questionnaire to 76, so that they and the four criteria fell within the 80 item capacity of available computer

TABLE 5

SUBTEST[a] ANALYSIS OF INTENSIVE SCALES

Group[a] 1		K-R 8 reliability = .891	Group 3		K-R 8 reliability = .858
Impact and Effectiveness			Knowledge and Understanding		
Questionnaire Item No.[b]	Source[c]	Item-group Correlation	Questionnaire Item No.	Source	Item-group Correlation
1	L	.720	5	L	.668
2	L	.683	6	L	.723
3	L	.562	7	L	.718
24		.746	8	L	.647
27		.518	9	L	.644
89		.674	133		.568
91		.682	135		.537
102	S	.661	137		.521
106	S	.737	139		.656
126		.687			
Group 2		K-R 8 reliability = .851	Group 4		K-R 8 reliability = .926
Loyalty and Motivation			Chairman Needs		
4	L	.732	68	S	.684
15	S	.755	69	S	.812
16	S	.732	70	S	.803
39	S	.734	71	S	.833
105	S	.657	72	S	.870
			73		.800
			74		.720

TABLE 5 -- Continued

Group 5	K-R 8 reliability = .928		Group 7	K-R 8 reliability = .950	
Chairman Characteristics			Communication Needs		
Questionnaire Item No.	Source	Item-group Correlation	Questionnaire Item No.	Source	Item-group Correlation
153	L	.841	114		.728
154	L	.854	115		.777
155	L	.843	116		.776
156	L	.846	117		.812
157	L	.697	118		.802
158	L	.800	119		.761
159	L	.424	120		.771
160	L	.876	121		.829
			122		.790
			123		.802
			124		.743
			125		.751
Group 6	K-R 8 reliability = .861		Group 8	K-R 8 reliability = .901	
Managerial Goal Emphasis (MGE)			Satisfaction		
10	S	.616	17	S	.825
48	S	.708	18	S	.843
144		.799	19	S	.768
146		.786	20	S	.822
148		.729			

TABLE 5 -- Continued

Group 9 K-R 8 reliability = .916

Managerial Work Facilitation (MWF)

Questionnaire Item No.	Source	Item-group Correlation
11	S	.718
12	S	.705
14	S	.707
23	S	.523
38	S	.774
41	S	.735
54	S	.731
127		.605
100	S	.712[d]
153	S	.718[d]
160	L	.769[d]

Group 10 K-R 8 reliability = .830

Influence

29	S	.453
30	S	.657
31	S	.749
32	S	.749
33	S	.634
34	S	.577
85		.635
87		.499

Group 11 K-R 8 reliability = .717

Activity and Motivation

Questionnaire Item No.	Source	Item-group Correlation
22	L	.636
107		.660
113		.628
141		.590

Group 12 K-R 8 reliability = .922

Decision Making Practices (DMP)

35	S	.763
36	S	.773
37	S	.826
40	S	.742
66	S	.588
98	S	.764
56		.762[d]
100	S	.731[d]
160	L	.748[d]

TABLE 5 -- Continued

Group 13 K-R 8 reliability = .889

Managerial Support (MS)

Questionnaire Item No.	Source	Item-group Correlation
13	S	.639
42	S	.835
46	S	.877
56		.815

Group 14 K-R 8 reliability = .947

Managerial Interaction Facilitation (MIF)

44	S	.875
60	S	.868
62	S	.896
64	S	.835
65	S	.876

Group 15 K-R 8 reliability = .914

Peer Interaction Facilitation (PIF)

Questionnaire Item No.	Source	Item-group Correlation
75	S	.766
77	S	.764
79	S	.789
95	S	.801
103	S	.758
104	S	.734
100	S	.762[d]

Group 16 K-R 8 reliability = .879

Peer Goal Emphasis (PGE)

81	S	.783
83	S	.822
93	S	.794
101	S	.796
142		.686
141		.461[d]

TABLE 5 -- Continued

Group 17	K-R 8 reliability = .936		Group 18	K-R 8 reliability = .776	
Peer Work Facilitation (PWF)			Consumer-Provider Representation		
Questionnaire Item No.	Source	Item-group Correlation	Questionnaire Item No.	Source	Item-group Correlation
97	S	.883	129		.781
99	S	.896	131		.732
100	S	.898			

[a] The term group is used in this table instead of subtest.

[b] Questionnaire items are from The Mid-Ohio Health Planning Federation Survey Questionnaire - see Appendix A.

[c] Source: L = adapted from - Tannenbaum, A. S. A study of The League of Woman Voters of the United States: factors in league effectiveness. Ann Arbor, Mich.: Institute for Social Research, 1958.

S = adapted from - Taylor, J. C., and Bowers, D. G. The Survey of Organizations: toward a machine-scored, standardized questionnaire instrument. Ann Arbor, Mich.: The Institute for Social Research, The University of Michigan, 1970.

[d] These items appeared in more than one group and demonstrate higher correlations with some other subset.

programs. In order to accomplish this another Department of Psychology program, the Wherry Test Selection (WHETS), was used to correlate questionnaire responses with each criterion. Those 76 items which correlated highest with the criteria were retained and submitted to a U.C.L.A. Biological and Medical Department principal components factor analysis (BMD 03M). This program offers an orthagonal rotation of the factor matrix.

Readers not familiar with the factor analysis technique are advised that it is essentially a method by which a large matrix of correlation coefficients is analyzed by one of several procedures, so that common sources of variance, called factors, are extracted. Variability is changed from that associated with pairs of items in the correlation matrix to that associated with clusters of items within the factors. More specifically, a factor analysis enables us to observe the degree that some items load on certain factors and not on others. By examining the content of such items the meaning of the factor with which they are associated can be understood. The end result is the parsimonious identification of the underlying structure and components of a mass of data. Simply stated, a factor analysis tells us the nature of the kinds of things being delt with.

The first factor analysis conducted in the present study was actually one of three, all using the same program. The other two were used to explore the possibility that each of the Federation's 17 counties might exhibit some unique factor loadings with which it could be characterized. Responses from each county were coded so that the counties

could be treated as a group of 17 pseudovariates. These were factor analyzed along with 59 predictor and 4 criterion variables. Unfortunately, the analysis of pseudovariates was largely unproductive in that meaningful patterns did not emerge. However, nine of the ten rotated factors from the first analysis reappeared, thereby indicating a degree of stability in the data.

In general, factor analyzing the contents of questionnaire responses was quite successful. It indicated that there are several important components of organizational structure which are meaningful to the development of the organization. Some of the factors subsume several of the elements listed in Table 4. Other factors are very specifically comprised of a single dimension of organizational behavior. A more complete discussion is given in the next chapter.

CHAPTER V

RESULTS AND DISCUSSION

"The function of theory is to guide us to new observations and better experiments. ...progress is made by successive approximations."

Donald O. Hebb

THE FACTOR ANALYSIS

The results of the factor analysis are given in Table 6. Ten orthogonally rotated factors were extracted which together account for 59 per cent of the total variance. An additional 16 per cent of the variance is scattered among 40 residual factors. These are considered to be nonsignificant and unidentifiable.

Within the factors, indicator variable loadings of .40 or more are considered to represent a conservative level of significance. They are parenthesized in Table 6 for easy identification. Ideally, an indicator variable should load heavily on one factor and minimally on all others. When his happens the resulting factors are said to be pure, and can be more readily interpreted. Only three factors, VII, IX, and X, were found difficult to interpret in the present study. Factors VII and X are neither pure nor heavily loaded. Although Factor IX is relatively pure, it loads heavily on three of the four criterion variables and

TABLE 6

ORTHOGONALLY ROTATED FACTORS AND FACTOR LOADINGS
FOR 76 VARIABLES AND 4 CRITERIA

Variable Description	Factors I	II	III	IV	V	VI	VII	VIII	IX	X
1. Community loss	.24	.28	.07	.09	.03	(.61)	.06	.09	.13	.09
2. Influentials aware	.26	.20	.16	.09	.10	(.55)	.06	.06	.04	.06
6. Staff role understood	.17	.07	.03	(.69)	.09	.05	.01	.15	-.03	-.08
9. Other committee aims understood	.19	.14	.05	(.53)	.13	.08	.07	.32	.03	-.01
11. Work organized	(.40)	.26	.25	.17	.08	(.45)	.02	.14	.08	.07
14. Told what you need to know	.37	.27	.19	.36	.05	.25	.01	.17	.08	.16
16. How differences are handled	.30	.37	.12	.18	.02	.28	.14	.09	-.03	.31
17. Satisfied with council	.30	.32	.19	-.04	.25	(.42)	.03	.00	.01	.37
18. Satisfied with chairman	.22	(.58)	.16	-.02	.19	.32	.06	.02	.04	.36
19. Satisfied with role	.38	.10	.13	.10	.11	.23	.08	.10	.06	(.49)
20. Satisfied with organization	.38	.19	.20	.07	.12	(.40)	.17	.25	.05	.37
23. Counties coordinate	.24	.18	.20	.07	-.05	.38	-.16	.23	.19	-.07
24. Council impact on CHP	.26	.26	.27	.13	.07	(.59)	-.02	.16	.15	.10
25. Members indoctrinated	.37	.27	.18	.20	.17	.30	-.12	.16	.06	.06
33. Staff influence	.19	.21	.05	.20	.11	.28	-.05	-.03	.07	-.03
37. Knowledge available to decision makers	.37	(.54)	.19	.13	.08	.16	-.01	.09	.05	.28
38. Committees plan together	(.43)	(.41)	.23	.08	.04	.34	-.03	.24	.03	.20
39. Factions resolve problems	.38	(.43)	.20	.03	.08	.29	.05	.09	-.05	.33
40. Chairman uses group meetings to resolve problems	.32	(.47)	.17	.13	.03	.12	-.11	.25	.04	.24
41. Chairman knows technical job	.27	(.65)	.19	.09	.21	.26	.10	-.04	.02	.01
42. Chairman friendly	.11	(.67)	.03	.13	.24	-.10	-.16	.15	.12	.13
46. Chairman listens	.13	(.78)	.08	.07	.24	-.06	-.17	.10	.11	.12

TABLE 6 -- Continued

Variable Description	Factors I	II	III	IV	V	VI	VII	VIII	IX	X
48. Chairman encourages best effort	.39	(.72)	.15	.02	.11	.09	.04	.09	.10	.04
50. Chairman has high standards	.30	(.70)	.18	-.06	.23	.23	.02	.06	.12	.05
52. Chairman sets example	.26	(.73)	.18	-.05	.17	.20	.02	.11	.13	.06
54. Chairman shows how to improve	.33	(.57)	.17	-.02	.08	.22	-.10	.16	.00	-.02
56. Chairman encourages members to express views	.27	(.69)	.16	.13	.03	.04	-.05	-.05	.16	.21
58. Chairman offers new ideas	.33	(.66)	.21	-.10	.08	.22	.10	.04	.06	.02
60. Chairman encourages teamwork	.39	(.69)	.14	-.07	.19	.16	-.17	.07	.05	.11
62. Chairman encourages idea exchange	.37	(.69)	.20	-.05	.17	.03	-.18	.04	.06	.22
65. Confidence in chairman	.23	(.74)	.17	.01	.11	.11	.01	.09	.14	.17
66. Number of meetings held by committees	.27	.27	.23	.14	-.08	.06	-.04	.25	.25	.08
69. Chairman needs information on good management	-.21	-.21	-.25	-.03	(-.70)	-.07	-.08	.03	.01	.03
70. Chairman needs change in things felt important	-.06	-.21	-.12	.00	(-.74)	-.04	.10	-.03	-.11	-.11
71. Chairman needs administrative ability	-.07	-.23	-.18	-.09	(-.80)	-.09	-.08	.01	-.02	.00
72. Chairman needs to use information on how people feel	-.07	-.22	-.14	-.07	(-.80)	-.06	-.03	-.05	-.01	-.06
73. Chairman needs to keep members aware	-.28	-.14	-.39	-.06	(-.59)	-.04	-.04	-.14	-.07	-.09
81. Members encourage each other	(.71)	.22	.10	-.03	.05	.12	.00	.07	.08	-.01
83. Group has high standards	(.71)	.21	.15	.02	.07	.23	.05	.15	.10	.01
91. High caliber providers	(.61)	.15	.07	.30	.08	.20	.07	-.04	.09	.01
93. Team goal emphasized	(.72)	.29	.21	.14	.08	.11	-.07	.04	.05	.05

TABLE 6 -- Continued

	Variable Description	Factors I	II	III	IV	V	VI	VII	VIII	IX	X
95.	Ideas exchanged	(.73)	.29	.22	.11	.08	.04	.02	.06	.05	.08
97.	Group coordinates	(.74)	.30	.25	.04	.05	.14	-.01	.11	-.08	.06
98.	Group solves problems well	(.69)	(.40)	.14	.09	.01	.20	.07	.04	-.02	.00
99.	Members know jobs	(.76)	.17	.13	.05	.05	.09	-.05	.17	.00	-.01
100.	Information shared	(.71)	.28	.20	.11	.16	.14	-.03	.09	.06	.04
101.	Group wants to meet goals	(.68)	.33	.12	.10	.08	.12	.12	.07	.08	.06
102.	Group responds to work demands	(.67)	.27	.17	.03	-.01	.03	.08	.12	.11	.09
104.	Confidence in providers	(.62)	.20	.00	.09	.17	.12	.07	.03	.03	.12
106.	Group effectiveness	(.56)	.24	.24	.08	.14	.24	.17	.20	.15	.01
107.	Meetings attended	.24	.03	.09	(.46)	.04	-.08	.18	.02	.39	.12
110.	Education	.09	-.07	-.05	.33	-.08	-.07	-.16	-.24	.05	-.12
111.	Community origin	-.10	-.08	.00	.28	.03	.13	-.06	-.19	.03	-.07
112.	Meetings missed	.07	.20	.19	.17	-.12	-.05	-.20	-.04	.24	-.08
113.	Willing to serve more terms	.04	.00	.00	.39	-.01	.11	-.08	-.02	.10	.16
114.	Communication needs: member/ committee	-.37	-.17	(-.65)	-.01	-.09	-.06	-.06	-.15	-.05	-.09
115.	Communication needs: committee/ committee	-.21	-.21	(-.74)	.02	-.07	.02	-.07	-.22	.07	-.08
116.	Communication needs: members/ chairman	-.20	-.24	(-.69)	.00	-.22	-.02	-.03	-.22	-.01	-.14
117.	Communication needs: members/ standing committee members	-.18	-.20	(-.77)	-.02	-.12	-.09	-.07	-.01	-.04	-.11
118.	Communication needs: standing committee members/director	-.05	-.18	(-.76)	-.04	-.13	-.15	-.06	-.01	-.05	-.11
119.	Communication needs: chairman/ staff	-.14	-.18	(-.66)	-.25	-.23	-.15	-.15	.01	-.08	-.04

TABLE 6 -- Continued

Variable Description	Factors I	II	III	IV	V	VI	VII	VIII	IX	X
120. Communication needs: council/ local officials	-.36	-.11	(-.65)	-.03	-.11	-.15	.05	-.04	-.17	-.03
121. Communication needs: council/ local leaders	-.18	-.15	(-.70)	.02	-.12	-.24	.15	-.03	-.13	.05
122. Communication needs: council/ other councils	-.10	-.17	(-.68)	-.03	-.11	-.19	.05	.10	-.14	.09
126. Standing committee effectiveness	.26	.27	.23	.08	.03	(.47)	.06	.19	.17	.09
127. Staff visibility	.16	.27	.21	.32	.15	.17	.21	.19	.06	.08
142. Committee sets objectives	.39	.15	.07	.11	.03	.21	.08	(.57)	.02	-.03
144. Council sets objectives	.21	.28	.08	.09	.05	.25	-.03	(.72)	.09	.01
146. Chairman assists in setting goals	.32	(.41)	.14	-.06	.05	.09	-.04	(.52)	.05	.06
152. Role of cliques	.06	-.19	-.34	.10	-.10	.01	.02	.07	.13	-.39
153. Chairman quick to help	.13	(.75)	.13	.13	.05	.11	.25	.16	-.05	-.03
154. Chairman coordinates activities	.19	(.67)	.23	.02	.10	.24	.34	.09	-.09	-.08
155. Chairman efficient administrator	.21	(.66)	.17	.07	.17	.23	.35	.15	.01	-.18
156. Chairman knows his job	.20	(.67)	.16	.10	.13	.22	.30	.15	-.10	-.16
158. Chairman applies pressure	.26	(.54)	.18	-.05	-.02	.25	.30	.13	-.04	-.17
160. Chairman delegates authority	.26	(.71)	.23	.12	.04	.17	.22	.12	-.06	-.07
161. Criterion: member rating	.21	.19	.21	.03	.23	.15	.34	.19	(.63)	.08
162. Criterion: returns	.05	.08	.01	-.08	.00	-.02	(.51)	-.02	.17	.05
163. Criterion: accomplishments	.01	-.06	.06	.30	-.03	.20	-.09	-.12	(.56)	-.12
164. Criterion: scaled expectancy rating	.09	.17	.11	.02	.14	.20	.18	.11	(.69)	.02
Proportion of Variance in per cent	35.5	4.7	4.6	3.0	2.7	2.1	1.9	1.7	1.6	1.3

only moderately on two other indicators. This makes its interpretation somewhat tenuous. Of the other factors, most span more than one indicator variable category and are called group factors. Only three, Factors III, V, and VIII, are clearly specific. They load on only one type of variable.

Factor names are derived by examing the indicator variables with which they are loaded, and then inferring an appropriate name. Table 7 makes the factors more visible. Significant loadings have been extracted from the clutter in Table 6, grouped, and listed in Table 7 under the chosen factor names.

Factor I, Group Characteristics, subsumes a few indicator variables from Groups 1, 9, and 12 in Table 5. It also loads on all but one of the indicator variables in Groups 15, 16, and 17. These are the variables designated as being in the "peer" category. Factor I is clearly an important and dominant dimension of council behavior. It accounts for more than 35 per cent of the total variance. Factor I concerns the characteristics of the committees, work groups, and members which comprise most of the volunteer membership of the Federation. Furthermore, it includes a qualitative aspect of group functioning. Factor I indicates both how things are done and how well they are done.

Factor II, Chairman Characteristics, Managerial Climate, Facilitation, and Support, is another group factor. It is much less imposing than Factor I, accounting for a more modest 4.7 per cent of the total variance. It loads heavily on indicator variables which describe what the chairman does. Factor II variables are drawn from Groups 2, 5, 6,

TABLE 7

PERFORMANCE FACTORS AND FACTOR LOADINGS
FOR SELECTED INDICATOR VARIABLES

	Factor and Assigned Name	Factor Loadings[a]									
	Indicator Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
I	Group Characteristics										
11.	Work activities sensibly organized	.40	-	-	-	-	.45	-	-	-	-
38.	Committees plan together	.43	.41	-	-	-	-	-	-	-	-
81.	Members encourage each other	.71	-	-	-	-	-	-	-	-	-
83.	Group maintains high standards	.71	-	-	-	-	-	-	-	-	-
91.	Providers do high caliber job	.61	-	-	-	-	-	-	-	-	-
93.	Team goal emphasized	.72	-	-	-	-	-	-	-	-	-
95.	Members exchange opinions, ideas	.73	-	-	-	-	-	-	-	-	-
97.	Group plans and coordinates together	.74	-	-	-	-	-	-	-	-	-
98.	Group solves problems well	.69	.40	-	-	-	-	-	-	-	-
99.	Members know jobs	.76	-	-	-	-	-	-	-	-	-
100.	Information shared within group	.71	-	-	-	-	-	-	-	-	-
101.	Group wants to meet goals	.68	-	-	-	-	-	-	-	-	-
102.	Group responds to work demands	.67	-	-	-	-	-	-	-	-	-
104.	Confidence and trust in providers	.62	-	-	-	-	-	-	-	-	-
106.	Rating of group effectiveness	.56	-	-	-	-	-	-	-	-	-
II	Chairman Characteristics, Managerial Climate, Facilitation, and Support										
18.	Satisfaction with chairman	-	.58	-	-	-	-	-	-	-	-
37.	Knowledge available to decision makers	-	.54	-	-	-	-	-	-	-	-

TABLE 7 -- Continued

Factor and Assigned Name / Indicator Variables	Factor Loadings[a] I	II	III	IV	V	VI	VII	VIII	IX	X
38. Committees plan together	.43	.41	-	-	-	-	-	-	-	-
39. How factions resolve problems	-	.43	-	-	-	-	-	-	-	-
40. Chairman uses group meetings to resolve problems	-	.47	-	-	-	-	-	-	-	-
41. Chairman knows technical job	-	.65	-	-	-	-	-	-	-	-
42. Chairman friendly	-	.67	-	-	-	-	-	-	-	-
46. Chairman listens	-	.78	-	-	-	-	-	-	-	-
48. Chairman encourages best effort	-	.72	-	-	-	-	-	-	-	-
50. Chairman has high standards	-	.70	-	-	-	-	-	-	-	-
52. Chairman sets good example	-	.73	-	-	-	-	-	-	-	-
54. Chairman shows how to improve	-	.57	-	-	-	-	-	-	-	-
56. Chairman encourages members to express views	-	.69	-	-	-	-	-	-	-	-
58. Chairman offers new ideas	-	.66	-	-	-	-	-	-	-	-
60. Chairman encourages teamwork	-	.69	-	-	-	-	-	-	-	-
62. Chairman encourages idea exchange	-	.69	-	-	-	-	-	-	-	-
65. Confidence and trust in chairman	-	.74	-	-	-	-	-	-	-	-
98. Group solves problems well	.69	.40	-	-	-	-	-	-	-	-
146. Chairman assists in setting goals	-	.41	-	-	-	-	-	.52	-	-
153. Chairman quick to help	-	.75	-	-	-	-	-	-	-	-
154. Chairman coordinates activities	-	.67	-	-	-	-	-	-	-	-
155. Chairman efficient administrator	-	.66	-	-	-	-	-	-	-	-
156. Chairman knows his job	-	.67	-	-	-	-	-	-	-	-
158. Chairman applies pressure	-	.54	-	-	-	-	-	-	-	-
160. Chairman delegates authority	-	.71	-	-	-	-	-	-	-	-

TABLE 7 -- Continued

	Factor and Assigned Name	Factor Loadings[a]									
	Indicator Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
III	Communication Needs										
114.	Member/committee	-	-	-.65	-	-	-	-	-	-	-
115.	Committee/committee	-	-	-.74	-	-	-	-	-	-	-
116.	Members/chairman	-	-	-.69	-	-	-	-	-	-	-
117.	Members/standing committee members	-	-	-.77	-	-	-	-	-	-	-
118.	Standing committee members/director	-	-	-.76	-	-	-	-	-	-	-
119.	Chairman/staff	-	-	-.66	-	-	-	-	-	-	-
120.	Council/local officials	-	-	-.65	-	-	-	-	-	-	-
121.	Council/local leaders	-	-	-.70	-	-	-	-	-	-	-
122.	Council/other councils	-	-	-.68	-	-	-	-	-	-	-
IV	Knowledge and Awareness										
6.	Staff role understood	-	-	-	.69	-	-	-	-	-	-
9.	Other committee aims understood	-	-	-	.53	-	-	-	-	-	-
107.	Meetings attended	-	-	-	.46	-	-	-	-	-	-
V	Chairman Needs										
69.	Information on good management	-	-	-	-	-.70	-	-	-	-	-
70.	Change in things felt important	-	-	-	-	-.74	-	-	-	-	-
71.	Greater administrative ability	-	-	-	-	-.80	-	-	-	-	-
72.	To use information on how people feel	-	-	-	-	-.80	-	-	-	-	-
73.	To keep members aware	-	-	-	-	-.59	-	-	-	-	-

TABLE 7 -- Continued

	Factor and Assigned Name	Factor Loadings[a]									
	Indicator Variables	I	II	III	IV	V	VI	VII	VIII	IX	X
VI	Impact and Effectiveness										
1.	Community loss if council ceased	-	-	-	-	-	.61	-	-	-	-
2.	Influential persons aware of council	-	-	-	-	-	.55	-	-	-	-
11.	Work activities sensibly organized	.40	-	-	-	-	.45	-	-	-	-
17.	Satisfied with council members	-	-	-	-	-	.42	-	-	-	-
20.	Satisfied with organization	-	-	-	-	-	.40	-	-	-	-
24.	Council impact on CHP	-	-	-	-	-	.59	-	-	-	-
126.	Standing committee effectiveness	-	-	-	-	-	.47	-	-	-	-
VII	Administration and Task Orientation[b]										
112.	Meetings missed	-	-	-	-	-	-	-.20	-	-	-
127.	Staff visibility	-	-	-	-	-	-	.21	-	-	-
153.	Chairman quick to help	-	.75	-	-	-	-	.25	-	-	-
154.	Chairman coordinates activities	-	.67	-	-	-	-	.34	-	-	-
155.	Chairman efficient administrator	-	.66	-	-	-	-	.35	-	-	-
156.	Chairman knows his job	-	.67	-	-	-	-	.30	-	-	-
158.	Chairman applies pressure	-	.54	-	-	-	-	.30	-	-	-
160.	Chairman delegates authority	-	.71	-	-	-	-	.22	-	-	-
161.	Criterion: member rating	-	-	-	-	-	-	.34	-	.63	-
162.	Criterion: returns	-	-	-	-	-	-	.51	-	-	-

TABLE 7 -- Continued

Factor and Assigned Name / Indicator Variables	Factor Loadings[a] I	II	III	IV	V	VI	VII	VIII	IX	X
VIII Managerial Goal Emphasis										
142. Committee sets objectives	-	-	-	-	-	-	-	.57	-	-
144. Council sets objectives	-	-	-	-	-	-	-	.72	-	-
146. Chairman assists in setting goals	-	.41	-	-	-	-	-	.52	-	-
IX Activity and Accomplishments[b]										
107. Meetings attended	-	-	-	.46	-	-	-	-	.39	-
112. Meetings missed	-	-	-	-	-	-	-	-	.24	-
161. Criterion: member rating	-	-	-	-	-	-	-	-	.63	-
163. Criterion: accomplishments	-	-	-	-	-	-	-	-	.56	-
164. Criterion: scaled expectancy rating	-	-	-	-	-	-	-	-	.69	-
X Openness and Satisfaction[b]										
16. How differences are handled	.30	.37	-	-	-	.28	-	-	-	.31
17. Satisfied with council	.30	.32	-	-	-	.42	-	-	-	.37
18. Satisfied with chairman	.22	.58	-	-	-	.32	-	-	-	.36
19. Satisfied with role	.38	-	-	-	-	.23	-	-	-	.49
20. Satisfied with organization	.38	-	.20	-	-	.40	-	.25	-	.37
37. Knowledge available to decision makers	.37	.54	-	-	-	-	-	-	-	.28
38. Committees plan together	.43	.41	.23	-	-	.34	-	.24	-	.20
39. Factions resolve problems	.38	.43	.20	-	-	.29	-	-	-	.33

TABLE 7 -- Continued

Factor and Assigned Name / Indicator Variables	Factor Loadings[a] I	II	III	IV	V	VI	VII	VIII	IX	X
40. Chairman uses group meetings to resolve problems	.32	.47	-	-	-	-	-	.25	-	.24
56. Chairman encourages members to express views	.27	.69	-	-	-	-	-	-	-	.21
62. Chairman encourages idea exchange	.37	.69	.20	-	-	-	-	-	-	.22
152. Role of cliques	-	-	-.34	-	-	-	-	-	-	-.39

[a] Factor loadings of .40 or more are usually considered to be significant and are emphasized in this table.

[b] Factors VII, IX, and X have insufficient loadings of .40 or more to be delineated on that basis. Therefore, loadings greater than .19 are shown for these factors.

8, 9, 12, 13, and 14 in Table 5. These groups include Managerial Goal Emphasis, Managerial Work Facilitation, Managerial Interaction Facilitation, and Managerial Support. Group 12 is dissimilar from the rest in that it involves decision making practices, and provides significant loadings for both Factors I and II. As one might expect, what the chairman does is an important part of council activity. He represents the management level of the organization to the council membership and influences decision making practices

Factor III, Communication Needs, is a strong specific factor which accounts for 4.6 per cent of the total variance. It is quite pure, having strong negative loadings on nine indicator variables, all of which indicate the need for better communications. Factor III is essentially the same as Group 7 in Table 5.

Factor IV, Knowledge and Awareness, accounts for 3.0 per cent of the variance and is also pure. Strictly speaking, Factor IV is a group factor because it spans more than one type of variable. It is, however, essentially the same as Group 3 in Table 5. Interestingly, Factor IV includes a significant loading on Indicator Variable 107 "meetings attended." This suggests that there is a definite relationship between member knowledge and awareness, and attendance at meetings. Of course one cannot be certain of the direction of causality, if indeed the relationship is causal. It is just as plausible to suggest that more knowledgeable members generate more meetings, as to suggest the reverse. This type of problem is inherent in all correlational studies. It can be resolved by direct experimental manipulation.

Factor V, Chairman Needs, is another pure, specific, and negatively loaded factor. It represents Group 4 in Table 5. Factor V loadings are all based on indicator variables taken from the Survey of Organizations. They are represented among the primary variables in Table 4 under the Miscellaneous Items category, and are labeled "Supervisory Needs." Taylor and Bowers (1970) present very little information about Supervisory Needs except to say that they are among the questions which have been found to be useful in the data feedback process. Hopefully, normative data will be developed for them at the Institute for Social Research, so that their importance can be better understood.

Factor VI, Impact and Effectiveness, includes indicator variables from Group 1 and Group 8 in Table 5. Although the factor is relatively pure, it is comprised of items which deal directly with impact and effectiveness, satisfaction, and a variable designated by Taylor and Bowers as belonging to the "Human Resources Primacy" group. The latter refers to "Work activities sensibly organized," a variable which also loads significantly on Factor I. In fact, at first glance it seems to fit better under Factor I's Group Characteristics label than here. The term "Human Resources Primacy" is defined in the footnotes of the next table. It is said to involve an organization's concern for human welfare and having work activities sensibly organized. A face value interpretation of its loading on Factor VI is that councils which have impact and are effective also tend to organize their activities well.

If concern for this item seems overdrawn one should note that Factor VI deals with organizational impact and effectiveness, precisely

the focal point of this study. Moreover, as we will find presently, all of the indicator variables which load on Factor VI correlate well with rating criteria. All of the correlations are in the .30s and .40s. Factor VI is indeed an important factor and each of its loadings is also important.

Factor VII, Administration and Task Orientation, is a rather weak, impure, and ambiguous factor which shares indicator variables with Factors II and IX. The most interesting thing about it is that it has a significant loading of .51 for the questionnaire return criterion, and a moderate loading of .34 on member ratings. Its nine nonsignificant loadings, all in the .20s and .30s, suggested the assigned title.

Factor VIII, Managerial Goal Emphasis, is a specific factor which shares one significant loading with Factor II. Factor VIII represents part of Group 6 in Table 5 and it is the only one of the eight leadership variables in Table 4 which stands out as a separate factor.

As noted previously, Factor IX, Activity and Accomplishments, is difficult to evaluate. It might appropriately be named The Criteria Factor, because all of its significant loadings involve the three most important criteria: member ratings, accomplishments, and the scaled expectancy ratings. Interestingly, the only other substantial loadings involve the number of meetings attended and meetings missed. This suggests the importance to the Federation of holding county level meetings and of having good attendance. On the other hand, it is not at all clear why "meetings missed" should also load on the same factor. Its presence seems to be contradictory unless the point is that a council

must hold a certain number of meetings before a portion of the membership can miss going to them. The number of meetings held by individual counties can be quite varied. Certainly if there are enough meetings, a member could both attend many and miss many without degrading his council's performance. In this case both indicator variables would merely show a high and favorable level of activity.

In evaluating Factor IX, another possibility is that the variables which load on the other nine factors are all important to organizational effectiveness to a similar degree. None is so uniquely related to the criteria that it loads on the same factor with them. Any variables which did so load would suggest a special relationship with the criteria, not characteristic of the others.

Factor X, Openness and Satisfaction, is also rather difficult to interpret. It is an impure group factor which shares moderately heavy loadings with three other factors. It seems to be most closely related to satisfaction, wherein its largest and only significant loading is found. The openness part of its name is much less obvious.

In sum, the ten factors seem to account for a substantial proportion of the behavior of the Federation, in so far as that behavior is represented by the content of the questionnaire. The factor analysis has underscored the importance of the group characteristics shown in Factor I, the important role played by the chairman, and the relative importance of communications, knowledge and awareness, goal emphasis, and meeting attendance. The analysis also suggests that the primary variables which have been identified by researchers at ISR, do indeed

play an important role at least in this type of volunteer organization. Many of the primary variables combined in loadings on the dominant first two factors.

All of the important structural dimensions which have been identified are believed to be closely related to organizational effectiveness. They indicate areas of concern to the Federation in its present and future development. If the same structure persists over time and tends to recur in similar volunteer organizations, the results will be that much more substantive and meaningful. There may be other dimensions of behavior which have not been delt with in this analysis. If so, their subsequent identification will tend to add to, rather than detract from what has already been found. Indications are that the major areas of concern have already been outlined.

THE CORRELATIONAL ANALYSIS

A brief digression to explain some relationships between the factor analysis and correlational analysis is in order before centering attention wholly on the latter. A factor analysis reduces a mass of data to a relatively few structural dimensions which account for different portions of the total variance. This is important and useful in its own right. It is also important to know which individual questionnaire items correlate with which of the criterion measures. Such information can lead to more concise and potent measurement devices. It can also indicate important specific relationships between predictors and criteria which might otherwise be lost.

Table 8 shows that, as expected, the highest correlations are found among the predictors and the two rating criteria. For member ratings, 68 of 75 correlations (91 per cent) are equal to or greater than .20. Five are above .40 and two of these are statistically significant at .412. For the scaled expectancy ratings, 53 of 76 (70 per cent) are equal to or greater than .20, and seven of these are in the .30s. Both the questionnaire return ratio and the accomplishments criteria were much less successful. The former yielded only two correlations in the .20s (3 per cent) and the latter only 5 (7 per cent). Within the context of this research, the rating techniques are clearly the more sensitive measures of the relationships being studied. It was mentioned in Chapter IV that accomplishments may become more useful at a later time. They should not be abandoned. The use of questionnaire returns as a criterion is not deemed to be nearly as promising.

The number of fairly high correlations for the two rating criteria is one of the most striking features about Table 8. Even though most of these are below statistical significance, correlations in the .30s and .40s for these kind of data are considered to be substantial. Finding them is interpreted as adding general support for the human relations movement theory discussed in Chapter III. Variables associated with the movement comprise the Survey of Organizations and hence form the core items in this study.

No attempt will be made to discuss each variable in Table 8. The significance of an individual predictor is rather easy to overstate, particularly when chance effects may cause spuriously high or low correla-

TABLE 8

CORRELATIONS AMONG BEST 76 VARIABLES
AND 4 CRITERION MEASURES

Variable Description[b]	Criteria[a] MR	QR	A	SER
1. Community loss if council ceased	.319	.083	.145	.310
2. Influentials aware of council	.332	.073	.108	.245
6. Staff role understood	.100	-.045	.191	.120
9. Other committee aims understood	.260	.017	.092	.189
11. Work is sensibly organized	.403	.064	.150	.298
14. Told what you need to know	.306	.032	.185	.232
16. How differences are handled	.284	.114	.063	.164
17. Satisfied with council	.322	.070	.008	.258
18. Satisfied with chairman	.370	.041	.001	.291
19. Satisfied with role	.301	.054	.032	.208
20. Satisfied with organization	.386	.115	.057	.296
23. Counties plan and coordinate together	.261	-.017	.237	.236
24. Council makes impact on CHP	.408	.059	.195	.302
25. Members indoctrinated	.295	-.017	.112	.203
33. Staff influence	.159	-.086	.194	.192
37. Knowledge available to decision makers	.307	.056	.091	.242
38. Committees plan together	.359	-.023	.060	.291
39. How factions resolve problems	.299	.108	-.005	.138
40. Chairman uses group meetings to resolve problems	.295	-.013	-.031	.248
41. Chairman knows technical job	.332	.056	.034	.305
42. Chairman friendly	.276	.010	.012	.199
46. Chairman listens	.276	.061	-.033	.203
48. Chairman encourages best effort	.381	.105	.004	.273
50. Chairman maintains high standards	.390	.100	.033	.341
52. Chairman sets example	.406	.072	.036	.293
54. Chairman shows how to improve	.240	.067	.004	.228
56. Chairman encourages members' views	.308	.134	.114	.231
58. Chairman offers new ideas	.345	.202	.002	.280
60. Chairman encourages teamwork	.322	.052	-.029	.261
62. Chairman encourages idea exchange	.310	.041	-.023	.233
65. Confidence and trust in chairman	.377	.118	.007	.315
66. Number of meetings held by committees	.322	-.017	.213	.276
Chairman needs:				
69. information on good management	-.311	-.075	.000	-.159
70. change in things felt important	-.307	.016	-.058	-.230
71. administrative ability	-.333	-.049	-.063	-.197
72. to use information	-.274	-.026	-.034	-.179

TABLE 8 -- Continued

Variable Description	Criteria			
	MR	QR	A	SER
73. Chairman needs to keep members aware	[c](-.424)	-.069	-.008	-.256
81. Members encourage each other	.279	.034	.049	.217
83. Group has high standards	.365	.104	.095	.242
91. High caliber providers	.322	.081	.140	.174
93. Team goal emphasized	.317	.085	.060	.201
95. Ideas exchanged	.360	.067	.064	.222
97. Group coordinates	.311	-.011	-.051	.167
98. Group solves problems well	.303	.053	.060	.193
99. Members know jobs	.274	.001	.030	.170
100. Information shared	.350	.010	.077	.263
101. Group wants to meet goals	.346	.138	.070	.246
102. Group responds to work demands	.332	.123	.092	.204
104. Confidence in providers	.291	.047	-.003	.208
106. Rating of group effectiveness	[d] -	.160	.122	.308
107. Number of meetings attended	.359	.131	.337	.286
110. Education	-.044	-.056	.180	-.079
111. Community origin	-.038	.001	.210	.015
112. Meetings missed	.179	-.099	.176	.149
113. Willing to serve more terms	.086	-.090	.164	.080
Communication needs:				
114. member/committee	-.328	-.035	-.078	-.211
115. committee/committee	-.269	-.054	.038	-.143
116. members/chairman	-.333	-.061	-.018	-.181
117. members/standing committee	-.372	-.048	-.066	-.239
118. standing committee/director	-.313	-.094	-.103	-.199
119. chairman/staff	-.374	-.076	-.120	-.273
120. council/local officials	-.369	-.025	-.123	-.296
121. council/local leaders	-.314	.021	-.109	-.226
122. council/other councils	-.276	-.055	-.119	-.227
126. Standing committee effectiveness	.385	.135	.206	.306
127. Staff visibility	.349	.206	.031	.264
142. Committee sets objectives	.332	.050	.000	.195
144. Council sets objectives	.344	.032	.030	.246
146. Chairman assists in setting objectives	.330	.040	-.027	.213
152. Roll of cliques	.071	.061	.161	-.022
153. Chairman quick to help	.315	.133	-.034	.234
154. Chairman coordinates activities	.353	.166	-.026	.248
155. Chairman is efficient administrator	(.424)	.170	.039	.305

TABLE 8 -- Continued

Variable Description	Criteria			
	MR	QR	A	SER
156. Chairman knows his job	.366	.116	-.055	.255
158. Chairman applies pressure	.298	.172	.005	.236
160. Chairman delegates authority	.326	.183	-.012	.187

[a] MR = Member Ratings, QR = Questionnaire Returns, A = Accomplishments, SER = Scaled Expectancy Ratings.

[b] For full description of variables refer to questionnaire, Appendix A.

[c] Correlations in parenthesis are significant at the .05 level.

[d] Variable no. 106 represents 244 raw score responses to questionnaire item no. 106 (see Appendix A).

Mean scores for each county were used as the MR criterion values. The same mean criterion score was assigned to each member of a given county.

tions in a specific study. However, when evidence from diverse sources converge to support the same finding, specific relationships take on added meaning. This explains why normative data from The League of Women Voters study are so important to evaluating the data reported here. Before turning to such material, a few additional observations about Table 8 can be made.

The importance of having an effective leader as the chairman in each county is clearly documented by the findings. Many of the higher correlations are directly related to the chairman's efforts. It also seems evident that developing member capabilities is quite important. This is indicated by both the correlations and the prominence of Factor I variables. The chairman alone cannot make an effective organization. He needs the support of a willing and able membership.

A third important influence is the Federation staff. The "staff visibility" predictor correlates .34 with member ratings. This compares with a somewhat less direct measure of staff influence, "standing committee effectiveness," which correlates .38. Appendix A shows that Federation members want more staff visibility. At present, only 41 per cent find the staff "quite visible" or "very visible." A greater number, 74 per cent, state that the staff should fit these descriptions. These findings by no means imply that the staff is necessarily remiss in its duties. Many members seem to be unaware of the full range of staff functions and the demands made of staff members' time. Only 38 per cent of the questionnaire respondents reported that they understand the role of the staff and its functions.

It can be noted that there is a fourth group level which is seemingly influential and important to the Federation, but which could not be included in this research because of limitations on time and resources. The Board of Trustees and the Executive Committee might well be studied to determine their contribution to the Federation's effectiveness.

The findings reported above concerning the importance of the chairman, the membership, and the staff seem rather obvious in retrospect. These are the basic components of the organization and it does not seem very revealing to find them so. On the other hand, knowing something intuitively and being able to document it with empirical data are not at all the same. The results could have indicated, for example, that one of the trio is by far more important to the Federation's effectiveness than the others. Instead, the data do seem to indicate that all three are important. Each is necessary but not sufficient for the development of an effective organization, and this is not so obvious.

NORMATIVE DATA: THE LEAGUE OF WOMEN VOTERS STUDY

Some of the questions asked Federation members are directly comparable with The League of Women Voters study (Tannenbaum, 1958) which are summarized in Table 1. That study reported a sample size of about 1,500 in 104 Leagues. Since it too concerns a volunteer organization, similar findings for comparable data in this report would tend both to support the generalizability of Tannenbaum's work and to add more credibility to Federation findings. Table 9 provides a comparison

TABLE 9

A COMPARISON OF SELECTED RESULTS FROM THE LEAGUE OF WOMEN VOTERS STUDY[a] AND THE MID-OHIO HEALTH PLANNING FEDERATION STUDY

Category	Reported Correlation with Organizational Effectiveness		
League Variable Description	League Judges' Rating	Federation Members' Rating	Federation Variable Description[b]
Community Impact			
1. League importance to community	.24	.31	1. Community loss if council ceased
2. Awareness of League by influential persons in the community	.33	.33	2. Influentials in community aware of council activity
3. Awareness of League by average person in the community	.26	.20	3. The average person's awareness of council activity
Questionnaire Return Rate			
4. Returns before follow-up	.33		
5. Returns after follow-up	.24	.30	(see Table 3) Questionnaire Returns
Quality of Member Work			
		.25	89. High caliber job done by consumers
		.32	91. High caliber job done by providers
6. Caliber of job done by membership as a whole as perceived by members	.33	.30	98. Group solves problems well

TABLE 9 -- Continued

Category	Reported Correlation with Organizational Effectiveness		
League Variable Description	League Judges' Rating	Federation Members' Rating	Federation Variable Description
Loyalty			
7. Member's reactions to threat to League by community opposition	.27	.15	4. If community opposition endangered your council, how much effort would you spend to prevent it?
8. Member's reactions to threat to League by disinterest of other members	.12		
Knowledge			
Member judgements of understanding of:			How well do you understand:
9. How National League sets its agenda	.24	.15	5. The review and comment procedure?
10. How a national consensus is attained	.18	.10	6. The role and functions of staff members?
11. How a national time for action is set	.13	.13	7. Your role in the organization?
		.06	8. What CHP should entail?
		.26	9. Aims of other standing committees?
Influence			
Influence as judged by members:			How much say or influence does each have?
12. of local president	-.02	.10	30. County council chairman

TABLE 9 -- Continued

Category	Reported Correlation with Organizational Effectiveness		
League Variable Description	League Judges' Rating	Federation Members' Rating	Federation Variable Description
13. of local Board	.14	.24	31. Board of Directors
14. of membership as a whole	.33	.23	32. Membership
Group Formation (cliquishness)			
15. Member's reports of influence of cliques	.00	.07	152. How active a role do informal groups or cliques play?
Leadership			
Characteristics of presidents as rated by Board members:			Characteristics of county chairman:
16. Quick to help when things go wrong	.36	.31	153. Quick to help when things go wrong
17. Coordinates various activities	.32	.35	154. Coordinates various activities well
18. Efficient administrator	.27	.42	155. Is an efficient administrator
19. Understands views and sentiments of members	.19	-.16	68. Needs more information on how his people feel about things
20. Knows what she is doing	.19	.36	156. He knows what he is doing.

[a] Tannenbaum, op. cit.

[b] Identifying numbers for variable descriptions refer to the questionnaire in Appendix A.

of results from both studies.

In most cases the results are very close indeed. Only one comparison in Table 9 shows a fairly wide difference. This concerns the roles of the League president and the county chairman as administrators. Even this correlational difference, .27 compared to .42, seems unimportant when one considers that the rating of local League presidents was done by Board members. And that it is being compared in the Table with a rating of chairmen by council members. If we look to the staff's rating on scaled expectancy scales, the "chairman's administrative ability" correlates .30 with it, very nearly the same as the .27 found by Tannenbaum. In two instances comparisons are not made in Table 9 because they would be more misleading than illuminating. Both the age and education of Federation and League members are not very comparable. Many Federation members are from the medical professions, and tend to be both older and presumably better educated than League members. For example, 31 per cent of Federation members are 46 to 55 years of age and 32 per cent are 56 or older. The median age of League members in 1958 was 45.3 years. Further, 68 per cent of the Federation members have completed college and 48 per cent graduate school. Although comparable data for League members in 1958 are not known, it is doubtful that they approach these levels. The Federation has an unusually well-educated membership.

In sum, comparisons between The League of Women Voters study and the present research indicate very similar results. More of the findings in the League study reached statistical significance because

of the larger sample size, 104 Leagues. And it seems quite likely that many more correlations in this study would prove to be statistically significant if the study were replicated on a larger sample.

NORMATIVE DATA: INSTITUTE FOR SOCIAL RESEARCH (ISR) NORMS FOR SURVEY OF ORGANIZATION VARIABLES

It has just been shown that the results of this study are quite similar to those reported by Tannenbaum (1958) for a different volunteer organization. Such findings are very encouraging. They suggest that at least some of the fundamental principles of organizational behavior described by human relations movement theorists seem to hold true in two diverse volunteer organizations. Campbell and Stanley (1963) have underscored the importance of such findings. They use the term "external validity" to describe results that are valid for different populations, settings, and measurement variables. An alternate term is "generalizability." The question asked is whether or not findings can be confidently applied to other situations. The implication is that findings which are robust enough to have endured through varied conditions and methods tend to be rather basic. This observation brings us to the next question of interest. How do the responses of part-time volunteers in the Federation compare with those of thousands of full-time members of industrial organizations? Fortunately, extensive normative data have been gathered by ISR scientists from an array of industrial organizations. Table 10 compares the ISR means and standard deviations for 23 primary variable categories, with appropriate item responses gathered in this

TABLE 10

NORMATIVE DATA: PRIMARY ORGANIZATIONAL VARIABLES[a]

Category[a]	Norm Group[b] Size	Mean[b]	Sigma[b]
Variable Description[c]		Mean[d]	Sigma
1. Managerial Support (MS)	22,759	3.86	1.00
42 Chairman friendly		3.81	1.25
46 Chairman willing to listen		(3.86)	1.11
56 Chairman encourages member views		3.81	0.98
74 Chairman needs more interest in all members		2.00	1.30
157 Chairman has a friendly disposition		(3.86)	1.06
2. Managerial Goal Emphasis (MGE)	22,745	3.76	1.05
10 Federation has clear-cut goals		3.24	1.18
48 Chairman encourages best effort		3.29	1.01
144 Council sets goals[c]		2.62	1.02
146 Chairman assists in setting goals		2.91	1.00
MGE Related Items			
50 Chairman maintains high standards		3.71	1.06
52 Chairman sets example		(3.76)	0.94
158 Chairman applies pressure		3.29	1.01
3. Managerial Work Facilitation (MWF)	22,762	3.13	1.15
54 Chairman shows how to improve		2.52	0.87
58 Chairman offers new ideas		(3.33)	1.16
127 Staff visibility		(3.29)	1.15
153 Chairman quick to help		(3.86)	0.85
154 Chairman coordinates activities[c]		(3.76)	0.83
156 Chairman knows what he is doing		(4.14)	0.96
MWF Related Items			
133 Qualified to work on community health		3.10	1.18
135 Qualified to work on environmental health		2.57	1.33
137 Qualified to work on mental health		2.24	1.26
139 Qualified to work on manpower, facilities, finance		2.76	1.38
4. Managerial Interaction Facilitation (MIF)	22,762	3.30	1.23
44 Chairman pays attention		(3.62)	0.92
60 Chairman encourages teamwork		3.14	1.35
62 Chairman encourages idea exchange		3.14	1.32

TABLE 10 -- Continued

Category		Norm Group Size	Mean	Sigma
	Variable Description		Mean	Sigma
	64 Chairman has confidence and trust in you		3.29	0.85
	65 You have confidence and trust in chairman		(3.71)	0.72
	154 Chairman coordinates activities[c]		(3.76)	0.83
5.	Peer Support (PS)	22,736	3.77	0.87
	79 Group members willing to listen		3.71	0.72
6.	Peer Goal Emphasis (PGE)	22,641	3.27	0.93
	81 Members encourage best effort		2.57	1.17
	83 Members maintain high standards		3.00	1.10
	93 Members emphasize team goal		2.57	1.29
	101 Group wants to meet objectives		3.24	0.94
	142 Committee sets objectives		2.43	1.03
	144 Council sets objectives[c]		2.62	1.02
7.	Peer Work Facilitation (PWF)	22,676	3.08	1.02
	97 Group plans together and coordinates efforts[c]		2.48	1.03
	99 Members know jobs		2.86	0.96
8.	Peer Interaction Facilitation (PIF)	22,622	3.03	1.15
	75 Members friendly		(3.71)	0.78
	77 Members pay attention		(3.67)	0.86
	95 Members exchange opinions and ideas		(3.19)	1.17
	PIF Related Items			
	103 Confidence and trust in consumers		(3.33)	0.91
	104 Confidence and trust in providers		(3.29)	1.06
9.	Lateral Communication	22,870	2.70	1.15
	12 Information adequate about other committees[c]		(3.05)	1.07
	100 Information shared within group		(2.95)	1.16
10.	Communication Flow	22,848	3.06	1.12
	12 Information adequate about other committees[c]		3.05	1.07
	13 Receptivity of superiors to ideas and suggestions[c]		(3.24)	1.09
	14 Told what you need to know		2.81	1.12

TABLE 10 -- Continued

Category		Norm Group Size	Mean	Sigma
	Variable Description		Mean	Sigma
11.	Upward Receptivity	22,801	3.19	1.09
	13 Receptivity of superiors to ideas and suggestions[c]		(3.24)	1.09
12.	Motivation	16,238	3.50	0.98
	28 Time per week spent working for Federation		1.14	0.47
	105 Responsibility felt for Federation's success		2.57	0.93
	141 Personal objectives set		3.43	1.21
13.	Motivational Conditions	16,686	3.40	1.03
	16 How differences are handled		3.29	1.11
	39 Manner in which factions resolve problems		3.14	1.53
14.	Influence	17,125	2.36	1.18
	29 Personal influence in council affairs		1.67	0.80
	85 Influence of consumers		(2.57)	0.93
	87 Influence of providers		(3.57)	0.98
15.	Coordination	14,684	3.21	1.09
	38 Committees plan together and coordinate		2.43	1.03
	97 Group plans together and coordinates		2.48	1.03
16.	Group Decision Making	16,829	3.46	0.97
	98 Group makes good decisions		3.05	0.97
17.	Decision Making Practices	22,639	2.87	1.05
	35 Decisions made where best information available		(3.05)	0.81
	36 Persons affected asked for ideas		(3.00)	1.14
	37 Information shared with decision makers		(3.10)	0.89
	40 Chairman uses group meetings		2.81	0.98
	66 Committee holds group meetings		2.57	1.03

TABLE 10 -- Continued

Category		Norm Group Size	Mean	Sigma
	Variable Description		Mean	Sigma
18.	Technological Readiness[e]	16,061	3.31	0.98
	102 Group able to respond to unusual work demands		2.86	1.01
19.	Human Resources Primacy[f]	22,146	3.28	1.03
	11 Work activities are sensibly organized		3.05	0.97
20.	Satisfaction with Company	22,350	4.00	1.05
	20 Satisfaction with-organization		2.85	1.32
21.	Satisfaction with Job	22,841	3.97	1.11
	19 Satisfaction with role		3.19	1.12
22.	Satisfaction with Supervisor	22,871	3.93	1.19
	18 Satisfaction with chairman		3.71	1.42
23.	Satisfaction with Work Group	22,888	4.09	0.97
	17 Satisfaction with persons in council		3.48	0.93

[a] Normative data from the Institute for Social Research (ISR) were not available in identifiable form for all of the primary variables shown in Table 4. ISR norms are based on responses from many industrial organizations and, as indicated, from thousands of respondents. They were updated on February 16, 1971.

[b] Norm Group Size, Mean, and Sigma refer to the sample size, mean, and standard deviation of each primary variable category.

[c] Variable Descriptions refer to questions from The Mid-Ohio Health Planning Questionnaire - Form A (which was adapted from the Survey of Organizations). See Appendix A for a full description of questions and responses. Several items are marked, indicating placement in more than one category. Exclusive placement under a single category

study. Those Federation means which equal or exceed the ISR category value are shown in parenthesis. When this happens it means that the average response of 244 Federation members in the 17 counties compares favorably with the average response of thousands of people in industrial organizations. For example, for Category 8, Peer Interaction Facilitation (PIF), the average response reported by ISR for all questions subsumed by this heading is 3.03. This is based on a summary of answers given by 22,622 individuals to questions which fall in the PIF category. All three items answered by Federation members which are clearly identified as PIF variables exceed 3.03. The conclusion is that Federation members are friendlier, more attentive, and more inclined to exchange ideas than are members of industrial organizations. The subcategory "PIF Related Items" means that variables so identified appear to fit the PIF category better than any other. But they could not be classified with the same degree of confidence.

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was deemed inappropriate or could not be determined for the marked items.

[d] Means for each of the variables under a category heading are based on the entire 244 questionnaire responses across all 17 Federation counties. Means in parenthesis are equal to or greater than the mean of the category with which they are associated.

[e] Technological Readiness is not shown in Table 4. It is a composit index which refers to the extent an organization (or company) is generally quick to use improved work methods, or has adequate, efficient and well-maintained equipment and resources. Variable No. 102 seemed to fit best in this category.

[f] Human Resources Primacy is another category not shown in Table 4. It too is a composit index, but refers to: (1) the organization's interest in member welfare and happiness, (2) the organization's efforts to improve working conditions, and (3) the extent that work activities are sensibly organized. Indicated norms were given by ISR specifically for Variable No. 11.

Of the 70 items compared with primary organizational variables in Table 10, only 25 (36 per cent) equal or exceed the ISR reference value. This suggests that the Federation has some room for improvement in a number of areas before it reaches a par with industrial organizations. On the other hand, the Federation is clearly superior in terms of Managerial Work Facilitation, Peer Interaction Facilitation, Lateral Communication, Upward Receptivity, and Decision Making Practices.

According to Table 10, satisfaction with the Federation is considerably less than that in industrial organizations. The difference is nearly one standard deviation, which in a normal distribution covers approximately 34 per cent of the area under the curve. The Federation should try to determine why members seem to be relatively dissatisfied and take corrective action. One seemingly relevant finding is that although members feel that both providers and consumers have influence, they personally do not. This could readily lead to dissatisfaction and should not be ignored.

A statistical comparison was made of the means in Table 10 to verify that the normative data and Federation responses are not from the same population. The grand mean for the 23 norm categories is 3.28. This was compared with 3.09, the grand mean for the 70 Federation responses. A test of the null hypothesis, that there is no statistical difference between the two means, was rejected at the .01 alpha level. This confirmed the apparent differences in the data which can be seen by visual inspection.

Two different conclusions might be drawn from this finding. First,

it can be argued that volunteer organizations and industrial organizations are qualitatively different, and the norms of one should not be used to measure the other. Likert and others would probably agree that there seems to be little evidence to suport this contention. The second explanation is that the differences are genuine indications of relative performance between comparable groups. Normative data from volunteer organizations would be most helpful in resolving this issue, but none is available at this time.

CORRELATIONS BETWEEN PROFILE SCORES AND THE RATING CRITERIA

The Profile of Organizational Characteristics - Form S (see Appendix B) was administered to 353 officers, trustees, and Board members of the Federation. From among those who responded, 158 usable questionnaires were gathered, representing a return ratio of about 45 per cent. Under the circumstances this is not considered to be a particularly poor showing. Many in this group filled out the longer Mid-Ohio Health Planning Federation Survey Questionnaire (see Appendix A), but either forgot, misplaced, or chose not to complete the Profile. Undoubtedly, the return ratio for this one-page instrument would have been much higher had it not been administered with its lengthy companion.

It was decided at the outset to modify and use the Survey of Organizations as the primary data gathering device, because it seemed to be both somewhat broader in scope and easier to adapt to the needs of this study. However, the Profile is also an excellent instrument for its intended purpose. Note that both questionnaires are discussed more

fully in Chapter IV.

Profile returns were received from all but one county. The data were analyzed by calculating a total score for each respondent within a county and then summing these to find that county's mean. The mean score of eight low-performance counties was used in lieu of having a score for the single nonrespondent. Mean scores for each county were then correlated with each of the criteria. As expected, the highest correlation was with the member rating of group effectiveness. It was, however, an unexpectedly high .825. The scaled expectancy rating was also high at an impressive .742. Then came the questionnaire return ratio, .430. And finally, the correlation with county accomplishments, .341. The first three are significant at the .05 level.

A detailed analysis of each of the Profile scores was outside the planned scope of project activity and has not yet been attempted. At this point the unexpectedly high total score correlations can be said to provide additional support for the human relations movement. Since the scores do represent data from officers and other influential members of the Federation, they may reflect a feeling of greater satisfaction that these members have with their roles. Moreover, Profile returns probably represent the efforts of the most dedicated and knowledgeable members of the Federation. These are the members who have accepted the responsibility of office, and who have demonstrated a willingness to cooperate in the study by returning both questionnaires.

Follow-up work in this area seems warranted. Immediate research objectives were to demonstrate the feasibility of using the Profile as an

alternate survey instrument, and to add convergent validity in support of the human relations theory of organizational development. Both of these aims have been accomplished.

QUESTIONNAIRE RETURNS AND MEMBER CHARACTERISTICS

To initiate the study, 772 questionnaires were sent to persons listed in updated Federation membership rosters. The 17 county chairmen were excluded because many of the questions concerned member reactions to chairman behavior. After follow-up notes had been sent, 305 of those contacted eventually responded in some way. The return ratio was, therefore, approximately 40 per cent. According to Gannon, Nothern, and Carroll in a recently published article (1971), "... surveys frequently have response rates below 50%." The net initial impression was that the length of the task had discouraged many busy and perhaps marginally committed members. In a sense the members were being given a test of their interest and willingness. Experience indicates that a minority of the members in groups and organizations often tend to do a disproportionate share of the work. However, other factors must be considered before reaching a conclusion.

A number of respondents returned blank questionnaires. Many of these said that they had attended only a single meeting and were neither members of the Federation, nor qualified to comment about its affairs. For some counties, it was found that records had not always been reliable and membership lists had been confused with lists of prospective members. In other cases committee members were not aware that being

on a Federation committee qualified them for membership and that they were considered to be Federation members. Some of these individuals identified with another health organization such as the TB or Heart Association. Although they work on committees with Federation members, they do not consider themselves to be a part of it.

The result of this type of ambiguity was twofold. First, of the 305 returns only 244 were sufficiently completed to be used in the data analysis. Second, the return ratio, 40 per cent, is probably unrealistically low. Some who were contacted probably did not respond because they felt that a mistake had been made in listing them as members. In a few cases physicians stated that they were too busy to take an hour or two to complete the questionnaires. In one instance a member stated that he thought trying to develop strong organizations was part of a general communist conspiracy.

It seems clear from all of this that the Federation should strive to develop more accurate membership lists. Greater attention should be given to indoctrinating new members, and to identifying and encouraging those who are willing to share the responsibilities.

MEMBER RESPONSES

Turning now to other, more general observations, there is some evidence that many members are not yet well prepared to perform the important and demanding job being asked of them. Appendix A contains several interesting findings in this regard. For instance, 39 per cent feel that they are not doing a high caliber job for the Federation; only

9 per cent report that they are. An impressive 82 per cent devote less than two hours per week to Federation activities. Perhaps the remaining 18 per cent, who devote more than two hours per week, are adequate. This is difficult to say. However, they represent only about 7 or 8 per cent of the total membership, and it seems likely that a better job of motivating members needs to be done. Questions 5 through 9 reveal that large groups of members have a rather inadequate understanding of some of the most basic concepts and functions of the Federation. Full and open participation in the organization is difficult for such members, who lack knowledge and ability to do meaningful work. The logical outcomes from such findings would be a lack of motivation, withdrawal, dissatisfaction, and more reliance on the staff or a few overworked members to carry the burden. Some of the findings already given seem to point in these directions. The following is a case in point.

It was a bit discouraging to find early in the project that members were said to lack the ability to use a comprehensive diagnostic instrument which had been developed specifically to aid volunteers in community health planning. The instrument in question is a two-volume document published by The American Public Health Association in 1967. Called, "A Self-study Guide for Community Health Action-planning," it provides a model and a detailed procedural outline to aid in solving the spectrum of community health problems. Approximately two years ago each Federation county was provided with the Guide and asked to follow its instructions. This would have resulted in a systematic assessment of most of the important components of community health planning for

each county, a task that staff members do not have the manpower to perform. It would also have been a vehicle with which to train members to solve their own problems, a learn-by-doing approach.

Unfortunately, none of the counties have completed the assessment. Some have completed part of it. Staff members suggest that the members do not know how to perform the analyses and gather the required information. They say that some of the questions are too difficult. Yet, many Federation members are very well educated. Are the members with know-how too busy or disinterested to do the required work? And what of the others? Can they not be trained to do what they must ultimately do, if the organization is to succeed?

It would seem that the primary aim of the staff should be to concentrate on developing member capabilities, so that they can uphold their part of the bargain. The impression developed is that staff members often get too emersed in "fire-fighting" activities and routine duties to attend to the more difficult task of developing and nurturing member capabilities. Yet, herein lies the future and ultimate success of the entire concept of comprehensive health planning. This evaluation assumes that the staff members know how to develop member capabilities, and have the time and resources available to do a thorough job. In general, the staff members seem to be an able and dedicated group. But they are burdened with many responsibilities, and most seem to be untrained in the necessary techniques of teaching others. Of course, they can be shown how to train and develop others, if priorities are placed in these areas. Through no fault of their own, they are required

to spend far too much time writing detailed and frequent progress reports, at the expense of more important activity.

A possibility worth exploring is to augment the staff with field representatives indigenous to the counties. These would be an extention of the planning staff and would not be seen as outsiders by the local members. Many potential benefits might flow from this arrangement. If the structure were given a fair trial on an experimental basis, the advantages would have to be weighed against the added cost.

On the more affirmative side, more emphasis is being placed by staff members on a goal-centered approach to problem solving. This should lead to the systematic development of greater accomplishments and capabilities throughout the organization. The goal-centered approach is deemed to be both an efficient technique and a useful device for fostering motivation. Staff members have developed an organized method for identifying problems, determining priorities, establishing objectives, assigning responsibilities, and measuring accomplishments. They will be able both to keep track of progress and to give credit wherever it is due.

One additional comment should be made about the Federation. Every organization has developmental problems of one kind or another. It is a very good omen when the organization's leadership assumes a scientific attitude and an active approach toward resolving them. There are few problems which have final and complete solutions; but there are just as few which cannot be adequately resolved by honest research and sufficient determination. Federation leaders have demonstrated a

commendable willingness in both of these important areas.

THE RESPONSES FROM OTHER B AGENCIES

The invitation to share research information which was sent to the 10 other B agencies in Ohio and to 12 in other states did not provide much useful material. Only half of the sample responded to the inquiry. All of these expressed a keen interest in the project and agreed that evaluation is extremely important. Only one, the New Orleans Area Health Planning Council, reported any in-depth research in any of the areas mentioned in Chapter IV. New Orleans served as the study group for a doctoral dissertation by Michael Daley, who is now with the Graduate School of Social Work at The University of Texas at Arlington. Dr. Daley was contacted but his research had not been completed and results were not available for comparison.

More typical replies were that performance is assessed informally and subjectively. Budgets are characteristically short and several of the agencies are quite new, still trying to develop basic procedures. One or two agencies mentioned the political sensitivity of projects which concern evaluations. An Ohio agency agreed to cooperate but advised that its members were too busy to be surveyed. The Metropolitan Atlanta Council for Health stated that it was about to embark on a training project involving its membership. This was of considerable interest and it was planned to cite or outline the project, but the results are still not available.

Materials received from the Comprehensive Health Planning

Association of San Diego and Imperial Counties were among the most interesting in terms of an apparently well organized, systematic approach to agency activity. The San Diego group sent a work program which specifies for each committee or task force: the objectives, accomplishments to date, goals, methodology, and estimated completion time. This is somewhat similar to the goal-centered approach being adopted by the Mid-Ohio Health Planning Federation.

Examples of materials of this sort could be of value to many of the B agencies which are in a less advanced stage of development. The materials would be discussed in more detail in this report were they not so far afield of the specific research objectives. Perhaps research of the type being reported will spur other agencies to continue the effort and to a fuller exchange of information on techniques and methods which are found useful. It is unfortunate that chronic budget and manpower shortages plague the B agencies. Perhaps they can look to A agency and regional or national level support for more needed research.

CONCLUSIONS

All study objectives have been successfully completed. Methodology has been developed for assessing organizational effectiveness and candidate assessment instruments have been applied to Federation members. More specifically, both the Survey of Organizations and the Profile of Organizational Characteristics have been adapted to Federation needs. A scaled expectancy rating device was developed and used to rate group behavior. It compared favorably with the members' own

rating of their group's effectiveness, which suggests that it could be used as an easily administered device apart from member participation. If the scaled expectancy scales are developed further and if the cooperation of other B agencies is elicited in developing them, the device may prove to have wide utility.

A great deal of descriptive information has been gathered about member perceptions of the Federation and their attitudes toward it. Many of the specific findings and implications have not been fully discussed. Even so, the data can be used by Federation leaders to help determine where emphasis should be placed in further developing the organization. In addition, the results of this research can help to establish a pool of normative data for charting the Federation's progress, and for comparison with the findings in other volunteer organizations.

The theoretical implications of the research findings in this report are quite important. They tend to agree with the growing amount of evidence supporting the human relations movement as defined by Rensis Likert and his colleagues at the University of Michigan. Convergent validation of the precepts of this movement have profound significance for organizational development. Although correlational studies cannot establish cause and effect relationships, they are useful in defining the parameters which should be isolated and studied in tightly controlled laboratory experiments.

Readers of this report should not be left with the impression that the Federation's few shortcomings outweigh its many assets. Quite the contrary is intended. In any direct comparison with similar B agencies

The Mid-Ohio Health Planning Federation would probably rank at or very near the top. This study underscores apparent and potential problems in order to help identify and resolve them. The aim is positive: to maximize the Federation's effectiveness, thereby making it even more successful.

APPENDIX A

The Mid-Ohio Health Planning Federation Survey Questionnaire - Form A (adapted from the Survey of Organizations by permission).

Responses from 244 Federation members in 17 counties are shown as per cents.

THE MID-OHIO HEALTH PLANNING FEDERATION
SURVEY QUESTIONNAIRE - FORM A

This questionnaire is part of a study being conducted by THE MID-OHIO HEALTH PLANNING FEDERATION. The aim of the study is to create methodology for evaluating organizational effectiveness so that means will be available to the FEDERATION for analyzing its present status and its subsequent development, and so that the FEDERATION can comply with recent H.E.W. requirements, to "Establish a structured evaluation system that utilizes all county councils in the process."

Many of the questions contained herein were adapted from the "Survey of Organizations," a publication of the Institute for Social Research (ISR) at the University of Michigan, and we are grateful to that institution for permission to modify their questionnaire.

If this study is to be helpful to the FEDERATION, it is important that you answer each question as thoughtfully and frankly as possible. This is not a test and there are no right or wrong answers. Completed answer sheets will be processed at the Ohio State University by automatic equipment which summarizes answers in statistical form so that individuals cannot be identified. To insure complete <u>*CONFIDENTIALITY*</u> *please do not write your name anywhere on the answer sheet.*

INSTRUCTIONS

1. Questions are to be answered by filling in one of the five answer spaces on the SEPARATE ANSWER SHEET. Do not mark answers on the questionnaire.

2. Please answer all questions in order and only one answer per question.

3. Remember, the value of the study depends upon your being straightforward in answering this questionnaire. You will not be identified with your answers.

4. The answer sheet is designed for the automatic scanning of your responses. Questions are answered by marking the appropriate answer space as illustrated in this example:

   Q. Which is the only marking instrument that will be read properly?

   A Ballpoint Pen
   B Fountain Pen
   C Black Lead Pencil
   D Other
   E None of These

   (Ans. Sheet) A B ■ D E

   A. C, Black Lead Pencil

5. Please use a soft pencil (No. 2 is ideal), and observe carefully these important requirements:

   - Make heavy black marks that fill the answer space.
   - Erase cleanly any answer you wish to change.
   - Make no stray markings of any kind.
   - Do not fold or crease the answer sheet.

6. Now that you have completed the instructions, please begin with the first question on the following page.

FORM A

NOTE: Read these answer categories over carefully. Then answer each of the following questions by blackening in the space ON THE ANSWER SHEET under the answer you want to give.

A a very little loss
B a little loss
C some loss
D a great loss
E a very great loss

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	MEAN	SIGMA
1.	How serious a loss to your community do you think it would be if your local county council ceased to function? A B C D E	14	11	32	29	22	3.29	1.06

A not at all aware
B a little aware
C somewhat aware
D much aware
E very much aware

To what extent do you think the following groups or persons in your community are aware of what your local county council is doing?

2.	Influential persons A B C D E	7	26	39	18	9	2.86	1.06
3.	The average person A B C D E	48	28	18	5	2	1.81	1.08

A very little effort
B little effort
C some effort
D considerable effort
E very much effort

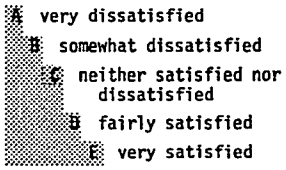
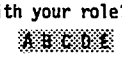
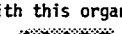
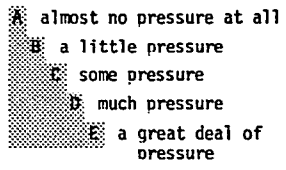
4.	Suppose that strong opposition to the Federation in your community put your council in real danger of folding. How much effort would you be willing to spend in order to prevent this? A B C D E	5	8	28	43	15	3.33	1.02

A not at all
B not very well
C fairly well
D quite well
E thoroughly understood

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
	How well do you understand the following:							
5.	The Review and Comment Procedure? A B C D E	25	20	29	18	7	2.43	1.29
6.	The role of the Federation staff in Columbus and the functions that staff members perform? A B C D E	9	22	30	30	8	2.91	1.41
7.	Your role in the organization and what is expected of you? A B C D E	7	18	30	29	16	3.14	1.24
8.	What comprehensive health planning in your community should entail? A B C D E	3	12	33	36	15	3.48	1.08
9.	The aims and accomplishments of those areawide standing committees to which you <u>are</u> <u>not</u> a member? A B C D E	17	30	36	13	3	2.57	1.03

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

10.	To what extent does the Federation have clear-cut, reasonable goals and objectives? A B C D E	7	12	35	41	5	3.24	1.18
11.	To what extent are work activities sensibly organized in the councils? A B C D E	10	14	40	31	4	3.05	0.97
12.	How adequate for your needs is the amount of information you get about what is going on in other committees or subcommittees? A B C D E	19	19	32	22	6	3.05	1.07
13.	How receptive are those above you to your ideas and suggestions? A B C D E	10	11	32	36	11	3.24	1.09
14.	To what extent are you told what you need to know to do your job in the best possible way? A B C D E	18	14	35	23	9	2.81	1.12
15.	To what extent do you have a feeling of loyalty toward this organization? A B C D E	10	9	27	41	13	3.19	1.08

	Percent of Responses for All 17 Counties						
	A	B	C	D	E	Mean	Sigma
16. How are differences and disagreements between committees or individuals handled in your council? A. Disagreements are almost always avoided, denied, or suppressed. B. Disagreements are often avoided, denied, or suppressed. C. Sometimes disagreements are accepted and worked through; sometimes they are avoided or suppressed. D. Disagreements are usually accepted as necessary and desirable and worked through. E. Disagreements are almost always accepted as necessary and desirable and are worked through.	9	11	27	34	14	3.29	1.11
 17. All in all, how satisfied are you with the persons in your council? 	5	8	22	40	24	3.48	0.93
18. All in all, how satisfied are you with your chairman? 	9	7	11	28	45	3.71	1.42
19. All in all, how satisfied are you with your role? 	7	14	27	32	19	3.19	1.12
20. All in all, how satisfied are you with this organization, compared to most others? 	10	17	22	33	17	2.85	1.32
 21. How much pressure to participate in Federation affairs would you say you, personally are subject to? 	51	20	19	3	6	1.95	1.12

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
	A council chairman B committee chairman or group leader C your areawide director D other members E yourself							
22.	What is the main source of whatever pressure you feel? A B C D E	17	12	9	8	51	3.81	1.60
	A to a very little extent B to a little extent C to some extent D to a great extent E to a very great extent							
23.	To what extent do different counties plan together and coordinate their efforts? A B C D E	41	17	30	8	0	2.19	1.08
24.	To what extent does your council make an impact on comprehensive health planning in your county? A B C D E							
	To what extent are members adequately indoctrinated into the organization and enabled to do what's asked of them?	21	17	32	22	7	2.67	1.07
25.	This is how it is <u>now</u>: A B C D E	24	27	33	12	2	2.43	0.98
26.	This is how I'd <u>like</u> it to be: A B C D E	4	5	31	45	31	3.81	1.37
27.	To what extent are you doing a high caliber job for the Federation? A B C D E	39	19	30	7	2	2.33	0.97
	A less than 2 hours B 2 to 5 hours C 6 to 10 hours D 10 to 15 hours E over 15 hours							
28.	On the average, how much time per week do you spend working on Federation affairs? A B C D E	82	13	4	0	0	1.14	0.47

A little or no influence
B some
C quite a bit
D a great deal
E a very great deal

		Percentage of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
29.	In general, how much say or influence do you have on what goes on in your council? A B C D E	34	41	17	5	2	1.67	0.80
	In general, how much say or influence does each of the following groups of people have on what goes on in your council?							
30.	County Council Chairman. A B C D E	8	16	18	29	28	3.76	1.18
31.	County Board of Directors. A B C D E	10	24	33	30	10	3.05	1.12
32.	Membership of County Council. A B C D E	16	35	27	15	5	2.76	1.00
33.	Areawide Standing Committee Staff. A B C D E	13	25	24	25	8	2.67	0.80
34.	How are objectives set in your county council?							
	A. Objectives are announced with no opportunity to raise questions or give comments.							
	B. Objectives are announced and explained, and an opportunity is then given to ask questions.							
	C. Objectives are drawn up, but are sometimes discussed with members and sometimes modified before being issued.							
	D. Specific alternative objectives are drawn up by the county council chairman, staff representative, or committee chairman, and members are asked to discuss them and indicate the one they think is best.							
	E. Problems are presented to those persons who are involved, and the objectives felt to be best are then set by the members, chairman, and Federation staff jointly, by group participation and discussion.	8	26	16	18	28	3.19	1.66

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

		Percentage of Responses for All 17 Counties						
		A	B	C	D	E	mean	Sigma
35.	In this organization to what extent are decisions made at those levels where the most adequate and accurate information is available? A B C D E	5	12	34	33	14	3.05	0.81
36.	When decisions are being made, to what extent are the persons affected asked for their ideas? A B C D E	7	13	30	31	16	3.00	1.14
37.	People at all levels of an organization usually have know-how that could be of use to decision-makers. To what extent is information widely shared in this organization so that those who make decisions have access to all available know-how? A B C D E	11	11	33	29	13	3.10	0.89
38.	To what extent do different committees plan together and coordinate their efforts? A B C D E	20	14	39	17	8	2.43	1.03
39.	Which of the following best describes the manner in which problems between factions are generally resolved?							
	A. Little is done about these problems -- they continue to exist.							
	B. Little is done about these problems -- they work themselves out with time.							
	C. The problems are appealed to a higher level in the organization -- but often are still not resolved.							
	D. The problems are appealed to a higher level in the organization -- and are usually resolved there.							
	E. The problems are worked out at the level where they appear through mutual effort and understanding.	17	14	14	13	37	3.14	1.53

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
40.	When your county council chairman has problems related to the work program, to what extent does he use group meetings to talk things over with his members and get their ideas? A B C D E	17	11	29	30	10	2.81	0.98
41.	To what extent does your chairman handle well the technical side of his job -- for example, general expertness, knowledge of comprehensive health planning, and the skills needed to organize and plan in this area? A B C D E	7	8	21	32	29	3.62	1.20

FOR THE FOLLOWING SET OF ITEMS: PLEASE READ EACH QUESTION AND THEN ANSWER HOW IT IS NOW, AND HOW YOU'D LIKE IT TO BE.

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

	How friendly and easy to approach is your chairman?							
42.	This is how it is now: A B C D E	5	5	16	35	37	3.81	1.25
43.	This is how I'd like it to be: A B C D E	1	1	7	41	48	4.14	0.79
	When you talk with your chairman, to what extent does he pay attention to what you're saying?							
44.	This is how it is now: A B C D E	6	5	19	35	32	3.62	0.92
45.	This is how I'd like it to be: A B C D E	0	1	11	42	42	4.05	0.74
	To what extent is your chairman willing to listen to your problems?							
46.	This is how it is now: A B C D E	5	2	21	34	34	3.86	1.11
47.	This is how I'd like it to be: A B C D E	0	1	12	41	43	4.14	0.85
	How much does your chairman encourage people to give their best effort?							
48.	This is how it is now: A B C D E	7	8	28	32	22	3.29	1.01
49.	This is how I'd like it to be: A B C D E	0	1	10	48	38	4.05	0.81

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
	To what extent does your chairman maintain high standards of performance?							
50.	This is how it is now: A B C D E	6	8	20	38	26	3.71	1.06
51.	This is how I'd like it to be: A B C D E	0	2	6	41	48	4.24	0.77
	To what extent does your chairman set an example by working hard himself?							
52.	This is how it is now: A B C D E	6	9	15	34	33	3.76	0.94
53.	This is how I'd like it to be: A B C D E	1	0	7	43	45	4.14	0.73
	To what extent does your chairman show you how to improve your performance?							
54.	This is how it is now: A B C D E	21	17	31	18	10	2.52	0.87
55.	This is how I'd like it to be: A B C D E	2	2	17	45	30	3.67	1.02
	To what extent does your chairman encourage all members to express their views?							
56.	This is how it is now: A B C D E	9	5	22	35	25	3.81	0.98
57.	This is how I'd like it to be: A B C D E	0	1	9	47	39	4.14	0.85
	To what extent does your chairman offer new ideas for solving problems?							
58.	This is how it is now: A B C D E	12	9	33	30	13	3.33	1.16
59.	This is how I'd like it to be: A B C D E	1	2	17	48	29	4.00	0.71
	To what extent does your chairman encourage members to work as a team?							
60.	This is how it is now: A B C D E	9	8	26	33	21	3.14	1.35
61.	This is how I'd like it to be: A B C D E	0	2	7	48	40	4.19	0.75
	To what extent does your chairman encourage members to exchange opinions and ideas?							
62.	This is how it is now: A B C D E	7	12	23	32	23	3.14	1.32
63.	This is how I'd like it to be: A B C D E	0	1	7	48	41	4.24	0.70
64.	To what extent do you feel your chairman has confidence and trust in you? A B C D E	5	5	28	38	19	3.29	0.85
65.	To what extent do you have confidence and trust in your chairman? A B C D E	4	7	16	36	33	3.71	0.72

A never
B once or twice per year
C 3 to 6 times per year
D about once per month
E more often than once per month

How often does your committee hold group meetings where members can really discuss things together?

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
66.	This is how it is now: A B C D E	13	22	45	16	2	2.57	1.03
67.	This is how I'd like it to be: A B C D E	1	9	41	40	5	3.00	1.14

HOW MUCH DOES YOUR CHAIRMAN NEED IN EACH OF THE FOLLOWING TO BE A BETTER MANAGER?

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

68.	More information about how his people see and feel about things: A B C D E	14	13	39	24	7	3.29	1.06
69.	More information about principles of good management: A B C D E	32	21	28	11	5	2.29	1.31
70.	A change in the kinds of things he personally feels are important: A B C D E	33	22	23	12	5	2.52	1.08
71.	Greater ability in handling the administrative side of his job: A B C D E	45	19	18	9	3	1.91	1.26
72.	Practice in making use of information he already has about how people feel, how to be a good manager, etc.: A B C D E	41	18	21	12	3	2.10	1.30
73.	More concern for keeping the members aware of what is going on: A B C D E	19	19	30	17	11	2.76	1.14
74.	More interest in and concern for all the members; less favoritism: A B C D E	50	17	14	8	6	2.00	1.30

	IN THE QUESTIONS BELOW, GROUP MEANS ALL THOSE PERSONS WHO REPORT TO THE SAME COMMITTEE CHAIRMAN.	Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
	How friendly and easy to approach are the persons in your group?							
75.	This is how it is now: A B C D E	5	7	28	36	20	3.71	0.78
76.	This is how I'd like it to be: A B C D E	2	4	9	51	30	4.00	0.55
	When you talk with persons in your group, to what extent do they pay attention to what you're saying?							
77.	This is how it is now: A B C D E	4	5	30	39	17	3.67	0.86
78.	This is how I'd like it to be: A B C D E	2	1	14	52	26	3.91	0.77
	To what extent are persons in your group willing to listen to your problems?							
79.	This is how it is now: A B C D E	4	5	33	38	15	3.71	0.72
80.	This is how I'd like it to be: A B C D E	2	2	18	48	26	3.86	0.79
	How much do persons in your group encourage each other to give their best effort?							
81.	This is how it is now: A B C D E	16	16	36	20	10	2.57	1.17
82.	This is how I'd like it to be: A B C D E	1	2	18	48	27	4.05	0.67
	To what extent do persons in your group maintain high standards of performance?							
83.	This is how it is now: A B C D E	9	15	36	29	7	3.00	1.10
84.	This is how I'd like it to be: A B C D E	2	1	11	49	32	4.24	0.89
	How much say or influence do consumer members have on what goes on in your council or group?							
85.	This is how it is now: A B C D E	20	18	30	21	5	2.57	0.93
86.	This is how I'd like it to be: A B C D E	2	5	24	46	18	3.52	0.93
	How much say or influence do provider members have on what goes on in your council or group?							
87.	This is how it is now: A B C D E	7	9	32	32	16	3.57	0.98
88.	This is how I'd like it to be: A B C D E	3	6	29	43	14	3.48	0.87
	In general, to what extent do consumers do a high caliber job in your council?							
89.	This is how it is now: A B C D E	16	19	34	19	5	2.62	0.92
90.	This is how I'd like it to be: A B C D E	2	1	17	51	21	3.91	0.77
	In general, to what extent do providers do a high caliber job in your council?							
91.	This is how it is now: A B C D E	9	12	30	36	8	3.19	1.03
92.	This is how I'd like it to be: A B C D E	2	1	16	53	23	3.95	0.67
	How much do persons in your group emphasize a team goal?							
93.	This is how it is now: A B C D E	16	14	33	25	9	2.57	1.29
94.	This is how I'd like it to be: A B C D E	2	0	14	51	29	3.91	0.77

		Percent of Responses for All 17 Counties						
	To what extent do persons in your group exchange opinions and ideas?	A	B	C	D	E	Mean	Sigma
95.	This is how it is now: A B C D E	12	10	31	32	12	3.19	1.17
96.	This is how I'd like it to be: A B C D E	1	1	9	54	30	4.10	0.70
97.	To what extent does your group plan together and coordinate its efforts? A B C D E	14	11	38	25	9	2.48	1.03

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

98.	To what extent does your group make good decisions and solve problems well? A B C D E	8	13	34	34	8	3.05	0.97
99.	To what extent do persons in your group know what their jobs are and know how to do them well? A B C D E	9	19	37	28	5	2.86	0.96
100.	To what extent is information about important events and situations shared within your group? A B C D E	9	14	32	32	10	2.95	1.16
101.	To what extent does your group really want to meet its objectives successfully? A B C D E	5	10	25	32	23	3.24	0.94
102.	To what extent is your group able to respond to unusual work demands placed upon it? A B C D E	9	11	40	30	4	2.86	1.01
103.	To what extent do you have confidence and trust in the consumers in your group? A B C D E	5	11	31	36	10	3.33	0.91
104.	To what extent do you have confidence and trust in the providers in your group? A B C D E	5	7	24	46	13	3.29	1.06
105.	To what extent do you feel a responsibility to help the Federation be successful? A B C D E	5	5	22	42	25	2.57	0.93

	Percent of Responses for All 17 Counties						
	A	B	C	D	E	Mean	Sigma
106. On the basis of your experience and information, how would you rate your group on effectiveness? How well does it do in fulfilling its mission or achieving its goals in comparison with other groups in this organization?							
A. The group does a rather poor job							
B. Fair							
C. Good							
D. Very good							
E. The group does an excellent job	15	23	32	23	5	2.95	1.02
107. During the past year (1971) how many meetings have you attended for the Federation (i.e., county council, areawide, committees, etc.)?							
A. Two or less							
B. Three or four							
C. Five to seven							
D. Seven to nine							
E. Ten or more	25	27	22	14	11	2.67	1.32
108. How long have you been a member of the Federation?							
A. Less than six months							
B. More than six months but less than one year							
C. More than one year but less than two years							
D. More than two years but less than three years							
E. Three years or more	6	9	24	30	29	3.91	1.00
109. Into what age bracket do you fall?							
A. 25 years or under							
B. 26 years to 35 years							
C. 36 years to 45 years							
D. 46 years to 55 years							
E. 56 years or over	0	12	24	31	32	3.95	0.97
110. How much schooling have you had?							
A. Grade school							
B. High school							
C. Some college or formal schooling beyond high school							
D. Completed college							
E. Graduate school	0	8	23	20	48	4.14	1.11

	Percent of Responses for All 17 Counties						
	A	B	C	D	E	Mean	Sigma
111. While you were growing up -- say until you were eighteen -- what kind of community did you live in for the most part?							
A. Rural area or farm							
B. Town or small city							
C. Suburban area near large city							
D. Large city							
E. Ghetto area of large city	27	49	10	13	0	2.10	0.70
112. During the past year (1971) how many Federation meetings (i.e., county council, areawide, committees, etc.) have you missed?							
A. None							
B. One or two							
C. Three or four							
D. Five to eight							
E. Nine or more	20	51	17	7	2	2.57	0.87
113. Assuming that your health and personal affairs permit it, for how many more one-year terms do you expect to be a member of the Federation?							
A. One year only							
B. Two years							
C. Three or four years							
D. Five or six years							
E. Seven years or more	20	20	30	6	18	2.67	1.39

A very little or none
B only a little needed
C some improvement needed
D a great deal needed
E a very great deal

			Percent of Responses for All 17 Counties						
			A	B	C	D	E	Mean	Sigma
	In general, how much improvement is needed in communications between each of the following?								
114.	Members with their committees:	A B C D E	7	15	43	25	10	3.29	0.96
115.	Committees with other committees:	A B C D E	6	11	39	27	14	3.48	0.87
116.	Members with their county chairmen:	A B C D E	9	18	36	22	13	2.95	1.02
117.	Standing committee members with other members:	A B C D E	5	14	45	22	10	3.19	0.75
118.	Standing committee members with areawide directors:	A B C D E	9	12	39	22	13	2.81	1.12
119.	County chairman with Federation staff:	A B C D E	17	22	34	14	10	2.38	1.16
120.	Your council with local health or other officials:	A B C D E	10	18	42	16	13	3.10	0.94
121.	Your council with local community leaders:	A B C D E	7	15	31	25	18	3.24	1.22
122.	Your council with other county councils:	A B C D E	7	11	39	20	18	3.05	0.87
123.	Your council with state agencies:	A B C D E	9	11	40	21	15	2.86	1.01
124.	Your council with non-member consumers in the community:	A B C D E	5	8	28	30	26	3.57	1.17
125.	Your council with non-member providers in the community:	A B C D E	5	7	33	28	21	3.52	0.98

A not very effective at all
B a little effective
C fairly effective
D quite effective
E very greatly effective

126.	How effective are standing areawide committees in developing and executing their programs:	A B C D E	18	23	39	16	1	2.71	0.85

A not very visible, rarely hear from them
B a little visible
C fairly visible
D quite visible, available whenever needed
E very visible, often on hand

			Percent of Responses for All 17 Counties						
			A	B	C	D	E	Mean	Sigma
	Considering all the demands on staff members, how visible are Federation staff members to you, i.e., how often do they visit or call your county and help with its planning?								
127.	This is how it is now:	A B C D E	15	14	27	32	9	3.29	1.15
128.	This is how I'd like it to be:	A B C D E	2	1	20	54	20	3.86	0.57

A to a very little extent
B to a little extent
C to some extent
D to a great extent
E to a very great extent

	To what extent are various types of consumers (e.g., minority groups, youth, aged, etc.) represented in your council and committees?								
129.	This is how it is now:	A B C D E	34	21	30	9	1	2.57	0.81
130.	This is how I'd like it to be:	A B C D E							
	To what extent are various types of providers represented in your council and committees?		5	7	36	36	15	3.62	0.74
131.	This is how it is now:	A B C D E	4	7	45	33	7	3.14	0.85
132.	This is how I'd like it to be:	A B C D E	0	2	32	45	15	3.81	0.68
	To what extent do you feel qualified to work on community health problems (e.g., disease control, home health services, maternal and child health, etc.)?								
133.	Th.s is how it is now:	A B C D E	7	14	39	26	12	3.10	1.18
134.	This is how I'd like it to be:	A B C D E	2	5	25	41	24	3.67	0.80
	To what extent do you feel qualified to work on environmental health problems (e.g., water and air pollution, sewage disposal, food and milk sanitation, etc.)?								
135.	This is how it is now:	A B C D E	18	21	29	24	7	2.57	1.33
136.	This is how I'd like it to be:	A B C D E	7	10	29	34	18	3.29	1.06

		Percent of Responses for All 17 Counties						
	To what extent do you feel qualified to work on mental health and mental retardation problems?	A	B	C	D	E	Mean	Stgma
137.	This is how it is now: A B C D E	20	22	30	15	9	2.24	1.26
138.	This is how I'd like it to be: A B C D E	9	11	31	25	21	2.95	1.20
	To what extent do you feel qualified to work on any of these problem areas: Manpower, Facilities, or Financing Comprehensive Health Planning?							
139.	This is how it is now: A B C D E	12	21	37	18	8	2.76	1.38
140.	This is how I'd like it to be: A B C D E	7	9	31	31	19	3.38	1.28
141.	Not counting general committee or council objectives, do you personally set some obtainable objectives for yourself? A B C D E	9	12	37	30	9	3.43	1.21
	Has your committee set specific, obtainable objectives for itself this year?							
142.	This is how it is now: A B C D E	18	14	34	23	5	2.43	1.03
143.	This is how I'd like it to be: A B C D E	4	3	18	53	17	3.67	0.97
	Has your county council set specific, obtainable objectives for itself this year?							
144.	This is how it is now: A B C D E	17	11	38	23	5	2.62	1.02
145.	This is how I'd like it to be: A B C D E	3	3	17	50	20	3.62	1.24
	How much does your county chairman assist members or committees in setting objectives?							
146.	This is how it is now: A B C D E	14	15	36	23	7	2.91	1.00
147.	This is how I'd like it to be: A B C D E	2	2	24	50	15	3.48	0.75
	How much does your staff representative assist the council or committees in setting objectives?							
148.	This is how it is now: A B C D E	11	14	34	24	11	3.00	1.05
149.	This is how I'd like it to be: A B C D E	1	2	28	43	20	3.52	0.75
	To what extent are the following statements true?							
150.	The organization would profit most by having strong, capable leadership at the top, so that all members would know precisely what to do, and what is expected of them. A B C D E	8	3	29	26	30	2.95	1.36
151.	The organization would profit most by developing member capabilities to the point where all share equally in decision-making and planning. A B C D E	6	9	24	34	23	3.38	1.16

		Percent of Responses for All 17 Counties						
		A	B	C	D	E	Mean	Sigma
152.	How active a role do informal groups or cliques play in determining council policies and actions? A. Not at all active B. Only a little active C. Somewhat active D. Very active E. Extremely active	24	26	23	13	8	2.67	1.28

A doesn't fit at all
B fits rather poorly
C fits somewhat
D fits well
E fits very well

How well would you say the following comments fit your county chairman?

153.	He is quick to help out when things go wrong: A B C D E	2	6	26	33	26	3.86	0.85
154.	He coordinates various activities well: A B C D E	4	8	24	39	20	3.76	0.83
155.	He is an efficient administrator: A B C D E	5	7	19	35	29	4.33	0.86
156.	He knows what he is doing: A B C D E	5	5	22	36	28	4.14	0.96
157.	He has a pleasant, friendly disposition: A B C D E	3	1	16	32	42	3.86	1.06
158.	He applies considerable pressure and maintains firm control of the organization: A B C D E	7	17	32	30	9	3.29	1.01
159.	He enjoys the recognition he gets in council activities: A B C D E	9	16	31	22	16	3.29	1.01
160.	He is quick to recognize ability and delegates authority well: A B C D E	4	10	29	28	23	3.86	0.96

Thank you - This completes the general survey questionnaire. Please review your answers on the answer sheet to make sure that you haven't skipped any questions and that only one response per question has been made.

APPENDIX B

Profile of Organizational Characteristics - Form S (modified for use in this study by permission).

FORM S(Mod.)

PROFILE OF ORGANIZATIONAL CHARACTERISTICS*

This questionnaire was developed for describing the management system or style used in an organization. In the present study it is being used to supplement The Mid-Ohio Health Planning Federation Survey Questionnaire and is being administered to all county council officers except the chairmen.

In completing the questionnaire, it is important that each individual answer each question as thoughtfully and frankly as possible. This is not a test; there are no right or wrong answers. The important thing is that you answer each question the way you see things or the way you feel about them. There is no separate answer sheet. Mark your responses on the form itself.

INSTRUCTIONS

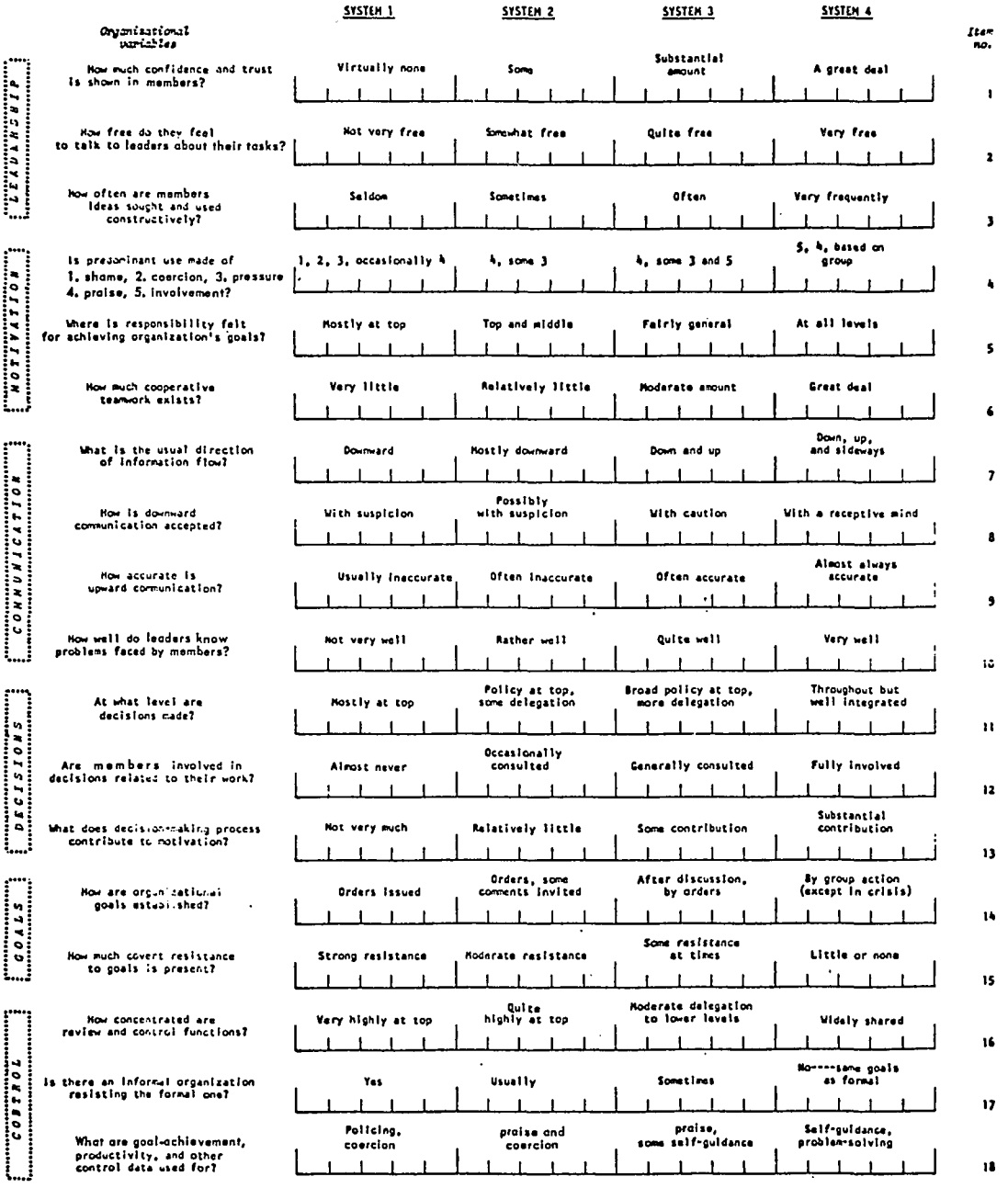
1. On the line below each organizational variable (item), please place an *N* at the point which, *in your experience*, describes your organization at the present time (*N* = now). Treat each item as a continuous variable from the extreme at one end to that at the other.

2. In addition, if you have been in your organization one or more years, please also place a *P* on each line at the point which, *in your experience*, describes your organization as it was one to two years ago (*P* = previously).

3. If you were not in your organization one or more years ago, please check here ____ and answer as of the present time, i.e., answer only with an *N*.

* This questionnaire was adapted from material presented in Appendix II in The Human Organization: Its Management And Value by Rensis Likert. It is copyrighted (c), 1967 by McGraw-Hill, Inc. and distributed by: The Foundation For Research on Human Behavior, P.O. Box 1248, Ann Arbor, Michigan, 48106. Permission to use is gratefully acknowledged.

PROFILE OF ORGANIZATIONAL CHARACTERISTICS



APPENDIX C

Scaled Expectancy Scales Developed for The Mid-Ohio Health Planning Federation and a Table of Inter-scale Correlations.

The summated total across all five scales was used as one of the four criterion measures.

RELIABILITY - dependable, consistent, conscientious, accurate, thorough, efficient, and marked by good record keeping

---

High Performance - Can nearly always be relied on to carry out responsibilities and assignments and maintain high standards without being told.

---

9 This council could be expected to send representatives to areawide meetings who would regularly and correctly report back to their council on the information conveyed to them, and who would insure that this information is discussed and understood.

8 This council could be expected to be consistently among the first to meet its financial obligation to the Federation.

7 Council members could be expected to attend meetings in sufficient numbers so that proper representation is maintained. You can always rely on having a quorum.

Medium Performance - Can often be relied on to carry out routine responsibilities and maintain satisfactory performance without being told.

---

6 This council is not expected to plague the staff with endless trivia. It can be relied on to handle routine matters effectively.

5 Members of this council could be expected to be interested, yet to get involved in other activities and not always come to meetings. This could be expected to result in lopsided and unreliable representation at some meetings.

4 The word doesn't always get out in this council. One meeting had to be rescheduled because notices were not sent. Members often complain of a lack of dependable communication, even though a planned procedure has been organized.

Low Performance - Can seldom be relied on to exhibit adequate routine performance without close supervision.

---

3 If asked to send an updated membership roster, this council could be expected to include names of potential members from a general mailing list. Some of these "members" could be expected to never have heard of the Federation.

2 Committee chairmen could not be expected to keep the ball rolling. They could be expected to do very little for months and then request considerable staff assistance a few days before a meeting.

1 (No example developed for this level)

MOTIVATION AND WILLINGNESS - interested, concerned, enthusiastic, willing to work, willing to accept assignments and face responsibilities, self-starting, takes initiative

---

High Performance - A very enthusiastic and spirited group, eager to grow and assume responsibilities. Trys hard to develop meaningful projects on its own.

---

9 If asked to do the leg-work and follow-up on a health services directory questionnaire, this council could be expected to compile and submit a virtual final draft of the directory in just two months.

8 This council could be expected to participate in many local and state meetings. In addition to their own professional association's meetings, several members could be expected to attend national meetings on health planning. You could expect real interest in making this council one of the most effective in the Federation.

7 This council could be expected to have good attendance at county health planning and at Federation Board of Trustee meetings. The members could be expected to be genuinely concerned about CHP problems and to want to do their best.

Medium Performance - Rises to the occasion when a crisis occurs. Otherwise, accepts responsibilities and makes some effort to further CHP without total reliance on the Federation staff.

---

6 (No example developed for this level)

5 (No example developed for this level)

4 Most members could not be expected to bring the agenda, minutes, and other material which has been mailed prior to their meetings. They could not be expected to be interested enough to make the effort.

Low Performance - Not likely to take the initiative. Expects the Federation staff to do most of the work. Many members seem disinterested and unwilling to work or even attend meetings.

---

3 The meetings in this county could be expected to drag. Members could be expected to yawn and discuss personal topics with their neighbors rather than CHP.

2 This council could be expected to be dissatisfied with the Federation staff. They could be expected to get more attention than most county councils; yet complain more and accomplish little or nothing constructive on their own.

1 (No example developed for this level)

KNOWLEDGEABILITY - knows community and CHP process, has diagnostic and self-appraisal ability, able to conduct surveys and research information

---

High Performance - Demonstrates ability to survey its own situation, assign meaningful priorities, and achieve its objectives with minimal outside help. Able to research problems. Able to relate community needs to the CHP process and structure.

---

9 Council leaders could be expected to understand comprehensive health planning, and to have prepared a series of slides to inform the members and public on such problems as housing conditions and nuisance abatement.

8 This council could be expected to keep abreast of local developments in community health services, manpower, health facilities, environmental health, and related functions. The review and comment procedure on special projects is handled with a great deal of expressed understanding.

7 Several members of this council could be expected to bring and share supportive material about other local planning and program activities. They try to keep themselves and others well informed about what is going on.

Medium Performance - Identifies community health problems, and has a working knowledge of local government and community resources, needs help in relating to less obvious CHP problems and issues.

---

6 (No example developed for this level)

5 This council could be expected to spend considerable time developing and submitting a proposal to build a practical nurses training facility in the county, without first determining that there are enough interested applicants to warrant it.

4 This council could not be expected to have anyone with adequate knowledge to write responses to questions from the Self-Study Guide. They simply don't know how to conduct such surveys.

Low Performance - Lacks working knowledge of community problems, resources, and comprehensive health planning. Unable to conduct simple surveys without considerable staff assistance.

---

3 Members of this council could be expected to report that they know too little about the workings of the local government, about its resources and their allocation, to be able to plan effectively.

2 This council could be expected to have a narrow viewpoint. For example, it would not see housing conditions as having any relationship to CHP. Members want to talk only about hospital facilities.

1 (No example developed for this level)

ORGANIZATIONAL ABILITY - acquires and maintains good community relations, magnetic ability (to draw in community and health leaders), structures work and work force effectively.

High Performance - Deliberate planning and systematic progression toward goals are very evident. The community knows of the Federation and supports it. Work is structured to make effective use of members and local resources.

---

9 Could be expected to appoint all required committees and to refer problems and projects to the proper committee which would then meet, discuss them and make written recommendations to the council Board of Directors. This orderly and systematic process could be expected to minimize confusion.

8 This council could be expected to succeed in attracting and holding the interest of influential members of the community in its affairs. Several could be expected to be active council members.

7 In this council charges to subcommittees could be expected to be clearly delineated and subcommittee reports given prompt and serious consideration.

Medium Performance - Some structure exists. The usual committees have been formed and records are kept. Occasional news releases give some publicity to the Federation.

---

6 The chairman of this council could be expected to conduct effective sessions by demanding that organized agendas be prepared in advance of the meetings.

5 The meeting room in this council could be expected to be comfortable and well ventilated, having a large conference table around which all members can sit.

4 This council could not be expected to carefully consider the qualifications of members of task forces and committees. As a consequence, appointed chairmen are more likely to be good fellows than to have much credibility or organizational ability.

Low Performance - Little systematic functioning is evident. Members act individually without much direction. Few in the community know what the Federation is.

---

3 Could not expect this council to have a Board of Directors or appointed committees. All the work could be expected to be done by the chairman and/or the Executive Committee.

2 The chairman of this council could not be expected to be interested in prepared agendas. Consequently, things could be expected to drift into social get-togethers.

1 (No example developed for this level)

OPEN AND DEMOCRATIC - receptive to ideas and to others, resilient, cooperates with staff and other groups, not afraid of controversy, skillful in human relations, elicits member participation, sensitive, cohesive

---

High Performance - Broad interests are represented and all members are encouraged to express their views. The work and responsibility are widely shared.

---

9 Despite objections from several members, this council could be expected to invite a number of controversial local figures to join the Federation, because most members would agree that divergent views in the community should be heard.

8 Committees within this council could be expected to be encouraged to find guest speakers. They recently heard a speaker and saw a film on operant conditioning practices in the mental health field.

7 If notified that Federation councils generally lack broad-based consumer representation, this council could be expected to determine that it needed more youths and to recruit some from local high schools. And then to warmly accept those recruited.

Medium Performance - Broad-based membership is neither blocked nor vigorously sought. Work and responsibility are shared by a minority of active members. Others are only marginally involved.

---

6 Members could be expected not to sit down before meetings start, but to reflect a great deal of cordiality as each member arrives and to make all members feel welcome and part of the group.

5 (No example developed for this level)

4 This council's members could be expected to come to meetings with their minds made up on specific issues and to not give an inch.

Low Performance - Narrow interests are represented. A few members dominate and suppress independent viewpoints. The climate is threatening and coercive. Cooperation is minimal.

---

3 If VD increased at an alarming rate among the youths in this county, the council could be expected to refuse to support any form of sex education in the high schools. They do not care to get involved in such controversial issues.

2 One could expect this council to handle new ideas either by ignoring them or by registering all of the reasons why they won't work.

1 Members of this council could always be expected to gather in cliques, always sit together, and seldom talk to other members.

TABLE 11

INTER-SCALE CORRELATIONS OF SCALED EXPECTANCY SCALES

	Reliability	Motivation and Willingness	Organizational Ability	Knowledgeability	Open and Democratic
Reliability	1.000	.899	.833	.733	.740
Motivation and Willingness		1.000	.869	.667	.821
Organizational Ability			1.000	.716	.765
Knowledgeability				1.000	.665
Open and Democratic					1.000

APPENDIX D

The Job Description Index (JDI)

From: Smith, Patricia C., Kendall, L. M., and Hulin, C. L.

The Measurement of Satisfaction in Work and Retirement.

Chicago: Rand McNally, 1969, p. 83, by permission.

JOB DESCRIPTION INDEX (JDI)

Put Y beside an item if the item describes the particular aspect of your job (work, pay, etc.), N if the item does not describe the aspect, or ? if you cannot decide.

WORK

Y Fascinating
N Routine
Y Satisfying
N Boring
Y Good
Y Creative
Y Respected
N Hot
Y Pleasant
Y Useful
N Tiresome
Y Healthful
Y Challenging
N On your feet
N Frustrating
N Simple
N Endless
Y Gives sense of accomplishment

PAY

Y Income adequate for normal expenses
Y Satisfactory profit sharing
N Barely live on income
N Bad
Y Income provides luxuries
N Insecure
N Less than I deserve
Y Highly paid
N Underpaid

PROMOTIONS

Y Good opportunity for advancement
N Opportunity somewhat limited
Y Promotion on ability
N Dead-end job
Y Good chance for promotion
N Unfair promotion policy
N Infrequent promotions
Y Regular promotions
Y Fairly good chance for promotion

SUPERVISION

Y Asks my advice
N Hard to please
N Impolite
Y Praises good work
Y Tactful
Y Influential
Y Up-to-date
N Doesn't supervise enough
N Quick tempered
Y Tells me where I stand
N Annoying
N Stubborn
Y Knows job well
N Bad
Y Intelligent
Y Leaves me on my own
N Lazy
Y Around when needed

CO-WORKERS

Y Stimulating
N Boring
N Slow
Y Ambitious
N Stupid
Y Responsible
Y Fast
Y Intelligent
N Easy to make enemies
N Talk too much
Y Smart
N Lazy
N Unpleasant
N No privacy
Y Active
N Narrow interests
Y Loyal
N Hard to meet

APPENDIX E

Correlations Among 84 Residual Variables and 4 Criterion Measures

TABLE 12

CORRELATIONS AMONG 84 RESIDUAL VARIABLES
AND 4 CRITERION MEASURES

	Variable Description	Criteria			
		MR	QR	A	SER
3.	Average person aware	.201	.025	-.033	.096
4.	Effort to prevent folding	.155	-.010	.033	.124
5.	Understands review and comment	.155	-.063	.098	.081
7.	Understands role	.130	-.035	.018	.092
8.	Knows CHP	.069	-.016	.014	-.001
10.	Federation has clear goals	.191	-.021	.072	.124
12.	Adequate information	.240	.035	.120	.188
13.	Superiors receptive	.151	.012	.098	.087
15.	Feeling of loyalty	.257	.105	.090	.227
21.	Pressure subjected to	.106	.112	.013	.027
22.	Source of pressure	-.120	-.090	.111	-.123
26.*	Members indoctrinated	.094	-.029	.169	.083
27.	Doing high caliber job	.185	.131	.132	.065
28.	Time spent on Federation	.228	.074	.090	.175
29.	Your influence in council	.212	.067	-.026	.158
30.	Chairman's influence	.106	.071	-.071	.106
31.	Board's influence	.245	-.017	.053	.191
32.	Membership's influence	.236	-.028	.041	.167
34.	How objectives are set	.234	.014	.120	.175
35.	Decisions made at proper level	.216	-.022	.071	.190
36.	Persons affected asked	.190	.062	-.009	.173
43.*	Chairman friendly	.077	-.015	.033	.102
44.	Chairman pays attention	.240	.019	-.006	.180
45.*	Chairman pays attention	.054	-.047	.032	.060
47.*	Chairman listens	.016	.038	.016	.043
49.*	Chairman encourages best effort	.024	-.001	.030	.028
51.*	Chairman has high standards	.091	.083	.022	.090
53.*	Chairman sets example	.128	.049	.007	.084
55.*	Chairman shows how to improve	-.030	.081	-.035	.020
57.*	Chairman encourages views	.023	.110	-.001	.064
59.*	Chairman offers new ideas	.080	.130	-.065	.068
61.*	Chairman encourages teamwork	.051	.078	.042	.073
63.*	Chairman encourages idea exchange	.063	.102	.033	.095
64.	Chairman trusts you	.225	.033	-.078	.182
67.*	Committee holds meetings	-.052	-.054	.016	-.032
68.	Chairman needs to know feelings	-.161	.039	.149	-.034
74.	Chairman needs less favoritism	-.228	-.067	.052	-.126

TABLE 12 -- Continued

	Variable Description	Criteria MR	QR	A	SER
75.	Group friendly	.199	.060	.043	.112
76.*	Group friendly	.092	.091	.076	.073
77.	Members pay attention	.194	.097	.072	.086
78.*	Members pay attention	.153	.103	.067	.033
79.	Members listen	.208	.083	.052	.088
80.*	Members listen	.132	.164	.044	.049
82.*	Members encourage effort	.063	.104	.073	.020
84.*	Members maintain standards	.117	.101	.079	.058
85.	Consumer influence	.251	.100	-.028	.111
86.*	Consumer influence	.053	.101	-.033	.036
87.	Provider influence	.229	.081	.088	.081
88.*	Provider influence	.159	.068	.028	.072
89.	High caliber consumers	.250	.073	.039	.172
90.*	High caliber consumers	.046	.099	.023	-.000
92.*	High caliber providers	.043	.085	.021	.033
94.*	Group team goal	.053	.061	.045	.018
96.*	Group exchanges ideas	.103	.076	.027	.044
103.	Confidence in consumers	.231	.140	-.026	.119
105.	Responsibility to help Federation	.121	.090	.143	.129
108.	Length of membership	-.098	-.072	-.023	-.151
109.	Age	.034	.007	-.011	.036
123.	Communication needs: council/ state	-.266	-.029	-.067	-.182
124.	Communication needs: council/ non-member consumers	-.190	.001	-.008	-.106
125.	Communication needs: council/ non-member providers	-.212	-.063	-.020	-.106
128.*	Staff visibility	.051	.059	.041	.067
129.	Consumers represented	.156	-.028	.080	.116
130.*	Consumers represented	-.052	-.048	.024	.015
131.	Providers represented	.045	.039	.040	.038
132.*	Providers represented	-.071	.014	.024	-.040
133.	Qualified on community health	-.152	-.027	-.008	-.163
134.*	Qualified on community health	-.126	-.009	.047	-.085
135.	Qualified on environmental health	-.021	-.003	-.084	-.045
136.*	Qualified on environmental health	.026	.005	-.027	.033
137.	Qualified on mental health	.038	.011	.024	.031
138.*	Qualified on mental health	-.015	-.029	.080	-.014
139.	Qualified in other areas	-.018	-.020	.013	-.067
140.*	Qualified in other areas	-.047	-.043	.089	-.089

TABLE 12 -- Continued

	Variable Description	Criteria MR	QR	A	SER
141.	Personal objectives	.078	.082	.118	.000
143.*	Committee objectives	.119	.038	.084	.038
145.*	Council objectives	-.022	.037	.025	-.044
147.*	Chairman assists setting objectives	.075	-.017	-.034	.029
148.	Staff assists setting objectives	.252	.043	.102	.196
149.*	Staff assists setting objectives	.024	.053	.085	.007
150.	Strong leadership needed	-.136	-.067	.022	-.050
151.	Shared decision making needed	.049	.092	.092	.069
157.	Chairman friendly	.132	.083	-.066	.111
159.	Chairman enjoys recognition	.144	.040	.009	.091

* The 35 marked items are the second questions in pairs of responses to the same stem. The first part asked: How is it now? The second asked: How would you like it to be?

REFERENCES

A self-study guide for community health action-planning. Vols. I and II. New York: The American Public Health Association, 1967.

Argyris, C. Personality and organization. New York: Harper, 1957.

Argyris, C. Integrating the individual and the organization. New York: Wiley, 1964.

Argyris, C. Issues in evaluating laboratory education. Labor Relations, October, 1968, 8, 28-40.

Armed forces zinging Zumwalt, USN. Time, November 9, 1970, 96 (19), p. 17.

Barnard, C. I. The functions of the executive. Cambridge, Mass.: Harvard University Press, 1938.

Bass, B. M. Organizational psychology. Boston: Allyn and Bacon, 1965, p. 15.

Baumol, W. J. Business behavior, value and growth. New York: Macmillan, 1959.

Bennis, W. G. Leadership theory and administrative behavior: the problem of authority. Administrative Science Quarterly, 1959, 4 (3), 259-301.

Bennis, W. G. Changing organizations. New York: McGraw-Hill, 1966, pp. 43, 47, 58.

Bowers, D. G., and Seashore, S. E. Predicting organizational effectiveness with a four-factor theory of leadership. Administrative Science Quarterly, 1966, 11 (2), 238-63.

Bowers, D. G., and Seashore, S. E. Predicting organizational effectiveness with a four-factor theory of leadership. In L. L. Cummings, and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 599-615.

Brayfield, A. H., and Crockett, W. H. Employee attitudes and employee performance. Psychological Bulletin, 1955, 52 (5), 396-424.

Brayfield, A. H., and Crockett, W. H. Employee attitudes and employee performance. In L. L. Cummings, and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 268-282.

Campbell, D. T. Leadership and its effects upon the group. Columbus: The Ohio State University, 1956.

Campbell, D. T., and Fiske, D. W. Convergent and discriminant validation by the multitrait-multimethod matrix. Psychological Bulletin, 1959, 56 (2), 81-105.

Campbell, D. T., and Stanley, J. C. Experimental and quasi-experimental designs for research. Chicago: Rand McNally, 1966.

Campbell, D. T., and Stanley, J. C. Experimental and quasi-experimental designs for research on teaching. In N. L. Gage (Ed.), Handbook of research on teaching. Chicago: Rand McNally, 1963.

Campbell, J. P., Dunnette, M. D., Lawler, E. E. III, and Weick, K. E., Jr. Managerial behavior, performance, and effectiveness. New York: McGraw-Hill, 1970, p. 416.

Campion, J. E., Jr. Effects of managerial style on subordinates' attitudes and performance in a simulated organization setting. Unpublished doctoral dissertation, University of Minnesota, 1968.

Coch, L., and French, J. R. P., Jr. Overcoming resistance to change. Human Relations, 1948, 1, 512-33.

Comprehensive health planning its goals and organization. Ohio's Health, February, 1970, 22 (2), 1-5.

Dent, J. K. Organizational correlates of the goals of business managements. Personnel Psychology, Autumn, 1959, 12 (3).

Drucker, P. F. The practice of management. New York: Harper & Row, 1954, pp. 62-63.

Dukes, W. F. N=1. In W. L. Barnette, Jr., (Ed.), Readings in psychological tests and measurements. Rev. ed. Homewood, Ill.: Irwin-Dorsey, 1968, pp. 59-64.

Dunnette, M. D. A behavioral approach for describing managerial effectiveness. Paper presented at a symposium, Bowling Green State University, Bowling Green, Ohio, December, 1970.

Dunnette, M. D., and Campbell, J. P. Laboratory education: impact on people and organizations. Labor Relations, October, 1968, 8, 1-27.

Etzioni, A. Two approaches to organizational analysis: a critique and a suggestion. Administrative Science Quarterly, September, 1960, 5, p. 258.

Fayol, H. General and industrial management. London: Pitman and Sons, 1949.

Fiedler, F. E. Engineering the job to fit the manager. Harvard Business Review, 1965, 43 (5), 115-22.

Fiedler, F. E. Engineering the job to fit the manager. In L. L. Cummings, and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 643-51.

Fleishman, E. A. Leadership climate, human relations training and supervisory behavior. Personnel Psychology, 1953, 6, 205-222.

Folsom, M. B. Health is a community affair. Report of the National Commission on Community Health Services. Cambridge, Mass.: Harvard University Press, 1966, pp. 160-61.

French, J. R. P., Jr., Ross, I. C., Kirby, S., Nelson, J. R., and Smyth, P. Employee participation in a program of industrial change. Personnel, 1958, 35, 16-29.

Georgopoulos, B., and Mann, F. C. The community general hospital. New York: Macmillan, 1962.

Georgopoulos, B., and Tannenbaum, A. S. A study of organizational effectiveness. American Sociological Review, October, 1957, 22, 534-40.

Gulick, L. H., and Urwick, L. (Eds.). Papers on the science of administration. New York: Columbia University, Institute of Public Administration, 1937.

Haberstroh, C. J. Processes of internal control in firms. Unpublished doctoral dissertation, The University of Minnesota, 1958.

Hare, A. P. Handbook of small group research. New York: The Free Press, 1962, p. 315.

Hebb, D. O. A textbook of psychology. Philadelphia: W. B. Saunders, 1958, pp. 259-60.

Herzberg, F., Mausner, B., Peterson, R. O., and Capwell, Dora F. Job attitudes: review of research and opinion. Pittsburgh: Psychological Service, 1957.

Jones, A. W. Southeastern Ohio Health Planning Association. Ohio's Health, February, 1970, 22 (2), 9-13.

Kahn, R. L., and Morse, N. C. The relationship of productivity to morale. Journal of Social Issues, 1951, 7, 8-17.

Katz, D., and Kahn, R. L. The social psychology of organizations. New York: Wiley, 1966.

Katz, D., Maccoby, N., and Morse, Nancy, C. Productivity, supervision and morale among railroad workers. Ann Arbor: Survey Research Center, University of Michigan, 1950.

Korman, A. K. "Consideration," "initiating structure," and organizational criteria - a review. Personnel Psychology, 1966, 19 (4), 349-61.

Korman, A. K. "Consideration," "initiating structure," and organizational criteria - a review. In L. L. Cummings, and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 627-35.

Korman, A. K. Organizational achievement, aggression and creativity: some suggestions toward an integrated theory. Organizational Behavior and Human Performance, 1971, 6 (5), 593-613.

Kurlee, G. K. The Scanlon plan: co-operation through participation. Journal of Business, 1955, 28, 100-13.

Lawler, E. E. III, and Porter, L. W. The effect of performance on job satisfaction. Industrial Relations, October, 1967, 7 (1), 22-28.

Lawler, E. E. III, and Porter, L. W. The effect of performance on job satisfaction. In L. L. Cummings, and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 283-90.

Leavitt, H. J. Unhuman organizations. Harvard Business Review, 1962, 40, 90-98.

Leavitt, H. J. Unhuman organizations. In L. L. Cummings, and W. E, Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 449-459.

Lesieur, F. G. (Ed.). The Scanlon plan: a frontier in labor-management co-operation. Cambridge: Technology Press, 1958.

Lewin, K., Lippitt, R., and White, R. K. Patterns of aggressive behavior in experimentally created social climates. Journal of Social Psychology, 1939, 10, 271-301.

Likert, Jane. Leadership for effective Leagues. Washington: League of Women Voters, 1958.

Likert, R. New patterns of management. New York: McGraw-Hill, 1961.

Likert, R. The human organization: its management and value. New York: McGraw-Hill, 1967.

Likert, R., and Bowers, D. G. Organizational theory and human resource accounting. American Psychologist, June 1969, 24 (6), 585-592.

Likert, R., and Seashore, S. E. Making cost control work. Harvard Rusiness Review, 1963, 41 (6), 96-108.

Likert, R., and Seashore, S. E. Making cost control work. In L. L. Cummings, and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 680-93.

Lowin, A. Participative decision making: a model, literature critique, and prescriptions for research. Organizational Behavior and Human Performance, 1968, 3, 68-106.

McGregor, D. The human side of enterprise. New York: McGraw-Hill, 1960.

McNemar, Q. Psychological statistics. 3rd. ed. New York: Wiley, 1962, pp. 107, 108.

March, J. G., and Simon, H. A. Organizations. New York: Wiley, 1958.

Marrow, A. J., Bowers, D. G., and Seashore, S. E. Management by participation. New York: Harper and Row, 1967.

Maslow, A. H. Motivation and personality. New York: Harper & Brothers, 1954.

Maslow, A. H. Eupsychian management. Homewood, Ill.: Irwin-Dorsey, 1965.

Michels, R. Political parties. Glencoe, Ill.: The Free Press, 1949.

Morse, Nancy C., and Reimer, E. The experimental change of a major organizational variable. Journal of Abnormal and Social Psychology, 1956, 52, 120-29.

Odiorne, G. S. Management by objectives. New York: Pitman, 1965.

Olivero, G. Validation of performance evaluation criteria by the principle of multiple operationism. Unpublished master's thesis, The Ohio State University, 1971.

Opshal, R. L., and Dunnette, M. D. The role of financial compensation in industrial motivation. Psychological Bulletin, 1966, 66, 94-118.

Porter, L. W., and Lawler, E. E. III. Managerial attitudes and performance. Homewood, Ill.: Irwin-Dorsey, 1968.

Roethlesberger, F. J., and Dickson, W. J. Management and the worker. Cambridge, Mass.: Harvard University Press, 1938.

Sales, S. M. Supervisory style and productivity: review and theory. Personnel Psychology, 1966, 19, 275-86.

Scanlon, J. N. Profit sharing under collective bargaining: three case studies. Industrial and Labor Relations Review, 1948, 2 (1), 58-75.

Schein, E. H. Organizational psychology. Englewood Cliffs, N. J.: Prentice-Hall, 1965.

Schultz, G. P. Worker participation on production problems. Personnel, 1951, 28, 201-10.

Seashore, S. E., and Bowers, D. G. Durability of organizational change. American Psychologist, March, 1970, 25: 227-233.

Smith, Patricia C., and Kendall, L. M. Retranslation of expectations: an approach to the construction of unambiguous anchors for rating scales. Journal of Applied Psychology, 1963, 47: 149-55.

Smith, Patricia C., Kendall, L. M., and Hulin, C. L. The measurement of satisfaction in work and retirement. Chicago: Rand McNally, 1969.

Starbuck, W. H. Organizational growth and development. In J. G. March (Ed.), Handbook of organizations. Chicago: Rand McNally, 1965.

Strauss, G. Some notes on power-equalization. In H. J. Leavitt (Ed.), The social science of organization. Englewood Cliffs, N.J.: Prentice-Hall, 1963, pp. 41-84.

Tannenbaum, A. S. A study of The League of Women Voters in the United States: factors in League effectiveness. Ann Arbor, Mich.: Institute for Social Research, 1958.

Tannenbaum, A. S. Control in organizations. New York: McGraw-Hill, 1968, p. 56.

Tannenbaum, A. S. Control in organizations. In L. L. Cummings and W. E. Scott (Eds.), Readings in organizational behavior and human performance. Homewood, Ill.: Irwin-Dorsey, 1969, pp. 667-79.

Taylor, J. C., and Bowers, D. G. The Survey of Organizations: A manual for research toward a machine-scored, standardized questionnaire instrument. Ann Arbor: The Institute for Social Research, The University of Michigan, 1970, pp. 3-4.

Vroom, V. H. Some personality determinants of the effects of participation. Englewood Cliffs, N. J.: Prentice-Hall, 1960, p. 4.

Vroom, V. H. Work and motivation. New York: Wiley, 1964.

Weiss, C. M. Multiple goals in the theory of the firm. In K. E. Boulding, and W. A. Spivey (Eds.), Linear programming and the theory of the firm. New York: Macmillan, 1960, pp. 181-201.

Whyte, W. F. Money and motivation. New York: Harper and Row, 1955.

Wickert, F. R. Turnover and employee's feelings of ego-involvement. Personnel Psychology, 1951, 4, 185-97.

Wood, M. T Some determinants and consequences of power distribution in decision-making. Unpublished doctoral dissertation, University of Illinois, 1970.

Wood, M. T. The conflict resolution model. In G. B. Graen (Ed.), Theories in organizational psychology. Unpublished manuscript.

Yuchtman, E. A study of organizational effectiveness. Unpublished doctoral dissertation, University of Michigan, 1966.