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TB77: Paths Out of Poverty: Research in the Northeast

William H. Groff

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NORTHEAST REGIONAL RESEARCH PUBLICATION

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PROJECT NE-68 PATHS OUT OF POVERTY

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Appendix A Working Paper Series

Appendix B Theses and Dissertations Related to NE-68
"Compendium" can be and is defined in various ways. In this publication the thrust is to present summaries of poverty research done under the aegis of the U.S. Department of Agriculture and the agricultural experiment stations of eight cooperating land grant universities in the Northeast.

The project was designated as Paths Out of Poverty and was identified as NE-68. While there is a general introduction, as well as introductions to the two main sections and a concluding summary, the major focus of the publication is the summaries of the various research projects. The reader is directed to the list of references following the entries of the individual states. In most cases reference is made to publications which present the summarized data in more detail. The reader is also directed to the list of theses and dissertations and the "working paper" series which appear as appendices.

While no claim is made that the original goal of NE-68 to identify "paths out of poverty" has been reached, the editors do believe that the reports of the various research projects will make valuable contributions to the knowledge about poverty and poverty alleviation programs in the Northeast. To help insure this goal a number of studies are reported upon which did not emanate directly from the formulation of the NE-68 project. Examples are Operation Hitchhike in New York, the earlier New Hampshire studies, and the farm family rehabilitation project in Vermont.

Acknowledgement for many services is accorded to Dr. Lee Taylor, then of Cornell University, Dr. Homer Evans, West Virginia University, and to Dr. David Burns, Rutgers University, whom served as administrative advisors to NE-68. Acknowledgement is also accorded Dr. James W. Longest, University of Maryland, Dr. J. Patrick Madden, Pennsylvania State University, and to Dr. James Converse, Cornell University whom served as chairman, consecutively, of the NE-68 Regional Committee.

The Editorial Board
William H. Groff
James W. Longest
Louis A. Ploch, Chairman
INTRODUCTION: PATHS OUT OF POVERTY

by

William H. Groff

The purpose of this introductory section is to briefly review some of the issues which were confronted by the Technical Committee of Regional Research Project NE-68, Paths Out of Poverty, and provide some insight on these issues which may be useful to other researchers and change agents working in the area. Basically these issues can be categorized as:

(1) Problems related to the definition and measurement of poverty;
(2) Problems related to the identification and/or evaluation of social action programs which could be viewed as "paths" out of poverty;
(3) Problems related to the identification and/or development of a conceptual framework which could give focus to the research and aid in synthesizing the results into a body of knowledge which could be used by change agents.

Since its beginning in 1969, the Technical Committee has attempted to resolve these and related problems with only partial success. Poverty is a complex multi-dimensional problem which can be approached from several different perspectives. The regional project reflects the concern of the project participants and the Experiment Station Directors and Interests in doing something to help alleviate the impact of poverty in the Northeast. The project proposal, on the other hand, reflects the interdisciplinary make-up of the Technical Committee and the diversity of their interests and approaches to the problem area.

The proposal is a general statement with four objectives framed rather broadly. These objectives were to:

(1) Examine the relationships between impoverished families and community and governmental services to find out why they have not enabled families to climb out of Impoverishment.
(2) Analyze the social and economical benefits and costs of various direct action programs.
(3) Use the results of prior analysis to improve existing programs, and design other programs so that they may more effectively meet the needs of the impoverished.
(4) Synthesize the results of the project research into a general theoretical framework and body of knowledge as a guide to implementation of more effective socio-economic Intervention programs.

Assoc. Professor of Rural Sociology, University of Connecticut
The first three objectives could involve basic research, evaluation and applied research, and the participation in the planning and implementation of programs designed to alleviate poverty. Although these three foci are not necessarily incompatible and are in fact often incorporated into a single scheme for social action, they may also involve differences in conceptualization, methodology, and the anticipated application of the findings. These differences, combined with the Interdisciplinary background of the researchers and the complexity of the issues described above led to the development of the proposal with a broad conceptual framework and contributed to the pursuit of several lines of research by individual researchers. Two earlier reports by Madden and Stockdale and Schubmehl describe the project's progress and present conceptual perspectives which represent some of the diversity in the general perspectives of the participants (Madden, 1972; and Stockdale and Schubmehl, 1972). Madden also discusses some of the conceptual problems including problems in making research "relevant to policy" or useful to policy makers. In short, "Paths Out of Poverty" clearly represents the serious concerns of the participants over the impact of poverty in the Northeast. It also reflects the complexity of poverty as a social problem and the difficulties in relating research to social programs and the policy process.

Defining Poverty

Poverty has many faces and means different things to different people. Poverty as a social and economic problem is often equated with impoverishment or deprivation and is viewed as a pathological condition afflicting the American society. Martin Rein (1969) identifies three broad concepts of poverty: subsistence, inequality, and externality. Subsistence is defined as the minimum level of living which would ensure survival and maintenance of physical efficiency. Inequality is concerned with the relative position of income groups within a social system. This perspective views poverty from a stratification perspective in which poverty must be seen as a social phenomenon. Its concern is with how the lower strata in a society compare to the rest of society. Externality is concerned primarily with the impact of poverty on the total society rather than the specific needs of the poor. Each of these concepts represents differences in program planning and the measurement of poverty.

The President's Commission on Income Maintenance Programs (1969) indicates that "defining poverty for policy-making purposes involves two basic problems: the first is the delineation of the circumstances existing in the real world which can be identified as poverty; the second is the use of a simplified concept to represent or measure these circumstances among different people and places" (ibid, Part 11:7). The report continues by pointing out that "poverty" has no meaning outside of some social context.
for policy-making purposes. From this perspective poverty is defined as the lack of essential economic resources with the meaning of "essential" dependent upon the consensus of the community. Two concepts of poverty which are essentially the equivalent of the subsistence and Inequality concepts described by Rein are discussed with the conclusion that as societies become more affluent there is a tendency to view poverty from the inequality perspective. Economic indicators are generally used in the identification and measurement of poverty since they are more readily obtained and can be viewed as an indicator of the social realities of poverty.

In 1969, the Federal Interagency Committee adopted a modified Social Security Administration definition of poverty based upon income. This index provides a range of poverty income cutoff points which varies for factors such as family size, farm and non-farm residence, sex of the family head, and the number of children under 18 years of age. These poverty cutoff points are based on an economy plan for adequate nutrition designed by the Department of Agriculture. In 1969, this index ranged from $1,487 for a female unrelated individual, 65 years of age or older, living on a farm to $6,116 for a nonfarm family with a male head containing seven or more persons. The weighted average cutoff point for a nonfarm family of four was $3,743 compared to an average of $3,195 for the corresponding farm family. This is the index used by most agencies in the determination of poverty and upon which the data on poverty in the 1970 census is based. The corresponding cutoff points in 1972 were $4,275 and $3,644 respectively.

In the report cited earlier, Madden discusses a definition of poverty presented by Wilber. Wilber defines poverty as a "multi-dimensional object with measurable properties" (Wilber, 1371: 2-24). He recognizes the fact that poverty is not an all or nothing problem but can best be represented as a continuum in qualitative terms. He lists five general poverty properties: health, capabilities, motivation, personality, and socioeconomic status including income, occupation and education. Wilber's definition thus places an emphasis on Inequality and the social realities of poverty.

Briefly, poverty can be conceived as an absolute or relative phenomenon which effects people in multi-dimensional matrices. Basic research is primarily concerned with the realities of poverty and the analysis of its causes and consequences. Applied research is more closely linked to policy considerations and the evaluation of anti-poverty programs. The emphasis in "Paths Out of Poverty" focused more directly on the assessment of anti-poverty efforts and relied more heavily on the definitive measurement utilized by policy makers and change agents. Essentially, poverty was conceived as inequality. Our activities were not restricted entirely to the official poverty line since we were concerned with a greater understanding of the problems and prospects of low income people even though they may be somewhat above the
official poverty level. Our particular interests lay in the area of relative deprivation and the relative position of low income families.

Paths Out of Poverty

The term "paths" out of poverty was conceptualized as referring to changes in the various determinants or properties of poverty. This would include changes in the various properties cited by Wilber such as improvement of health and nutrition, job skills, educational attainment, and income. Given the conceptual perspective of poverty as relative inequality it would also include changes in the social structure such as the development of new organizations and economic development in the community. More directly, "paths" also refers to intervention programs and strategies which would improve the economic resources of the impoverished either through direct actions or indirectly through changes in the delivery of services or changes in the social system.

Among the "paths" analyzed by the project participants were the Food Stamp Program (Madden and Yoder, 1972), The Rural Farm Family Rehabilitation Project (Tompkins, et. al., 1973), the Nutritional Program (Tenant and Longest, 1973), and Self Help Housing (Thatch and Bartels, 1973). These and other similar projects were primarily concerned with the analysis of specific programs or "paths". Several other projects were more directly concerned with changes in the structure of the community, and the general analyses of the poverty situation in the community. Examples of these are the Chenango Development Project (Stockdale, 1973), the project in Maine (Ploch, 1972), and the Connecticut project (Groff and Tomashek, 1972). This diversity in the conceptual perspectives held by the participants contributed to their choice of "paths" to be analyzed.

Who Are the Poor

By definition, the poor are families or individuals whose income is at the lower levels of the income continuum or whose incomes fall below the official poverty level. A series of reports published by the Department of Commerce provides a good description of the characteristics of the low-income or poverty population in the U.S. based upon the findings of current population surveys. Stockdale and Schubmehl (1972) utilized this data for 1970 in the report cited above. Since tabular presentations are presented in their report and in the annual reports by the Department of Commerce, we will only summarize the major characteristics of the poor.

Approximately 22.5 million people comprising approximately 12 percent of the population had annual incomes which fell below the official poverty level in 1972 (U.S. Department of Commerce, 1973). This represents a sizable reduction from the 22 percent figure identified for 1959. Given the rising cost of living which
has tended to be greater than the increases in the official poverty level. It seems possible that the relative change was much lower than absolute figures cited. Of these low-income persons, nearly one-fifth were over 65 years of age and approximately one-third were children under the age of 14. Over two-thirds were white. Relatively, only about one-tenth of all whites were poor compared approximately with one-third of the black population and one-sixth of persons from other racial groups. Nearly one-half of the designated poor lived in non-metropolitan areas and approximately one of every five farm families had incomes below the official poverty level compared to one of every twelve families in the metropolitan areas.

Nearly one out of every three families with a female head had incomes below the poverty level even though nearly 40 percent of these women worked at some time during the year. Nearly 60 percent of the male family heads with incomes below the poverty level also worked.

Thus, the poor are the young and the old; the underemployed, the unemployed, and "unemployable"—They are nearly equally divided between metropolitan and non-metropolitan areas. Higher proportions of farm residents, blacks, families headed by females, families with 7 or more members, and the elderly have family incomes below the official poverty level. Perhaps it would be more accurate to refer to "poverties" rather than poverty since the poor differ in their characteristics and their needs. They are not a homogeneous group despite the common factor of low income. Different "paths" are required to alleviate the impact of poverty among the various subgroups. The meaning of poverty and its conceptualization and policy problems also are related to the specific characteristics of the various subgroups.

A number of books and articles have described poverty in America from both the statistical perspective and the realities of poverty and deprivations. Will and Vatter (1965), Messner (1966), and Lamer and Howe (1968) are good examples of books containing a series of articles on the extent of poverty in America and its impact on individuals and families. A recent book edited by Ficher and Graves (1971) provides a poignant description of the meaning of poverty to the impoverished which cannot be obtained from statistics (Ibid:2–7). Although the impact of poverty may vary, it generally means a way of life far removed from that of the average citizen. Perhaps the realities of poverty can only be understood by those who have experienced impoverishment.

In summary, poverty is a complex multi-dimensional phenomenon which cannot be eliminated through simple and single answer solutions. Conceptually, the committee viewed poverty as a relative phenomenon which effects people in different ways depending upon their relative position in the social system. Emphasis was placed on low-income people, in the belief that deprivation is not restricted to the official poverty line. Where specific programs
were analyzed, the program's official poverty line was used in the analysis. Essentially, we considered poverty as a functional combination of individual and family characteristics and socioeconomic conditions. The project's general conceptual framework is discussed in more detail later in this section.

Poverty In the Northeast

Tables One and Two contain information on the incidence of poverty in the various regions in the United States and for the states in the Northeast Region based upon data from the 1970 census. The differences in the rates for the Northeast Region reflect differences in the regional definitions used by the Bureau of Census and the Department of Agriculture. The Northeast region is defined by the Bureau of Census as the New England states and the Middle Atlantic states while the Department of Agriculture's definition also includes Delaware, Maryland, and West Virginia.

An examination of Table One indicates that the proportion of families in the Northeast as defined by the Bureau of the Census was lower than that of any of the remaining three regions. This relationship persists when we look at families with incomes of 75 percent and 125 percent of the official poverty line. Although only 7.6 percent of the families in the Northeast had annual incomes in 1969 which fell below the poverty level as compared to 10.7 percent of all families in the United States and 16.2 percent of the families in the South this proportion represents approximately 936 thousand families living in the most affluent region in the country. The relative impact of low income in an affluent region as well as the number of families involved suggests that poverty is a major problem in the region.

Table One: The Proportion of Families in the United States at or Near the Poverty Level by Region, 1969 and 1972.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
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<tbody>
<tr>
<td>Northeast</td>
<td>7-6</td>
<td>8.3</td>
<td>16.2</td>
<td>8.9</td>
</tr>
<tr>
<td>North Central</td>
<td>5.8</td>
<td>10.9</td>
<td>12.7</td>
<td>13.3</td>
</tr>
<tr>
<td>South</td>
<td>8.9</td>
<td>5.9</td>
<td>15.0</td>
<td>9-3</td>
</tr>
<tr>
<td>West</td>
<td>10.7</td>
<td>7.0</td>
<td>12.7</td>
<td>8.8</td>
</tr>
<tr>
<td>United States</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(a) Northeast contains Middle Atlantic and New England states.
As the data in Table One indicates, the incidence of poverty is declining with the South experiencing the largest declines and the West the lowest.

Table Two: The Proportion of Families with Family Income Below Poverty by State and Place of Residence, for the Northeast Region, 1969

<table>
<thead>
<tr>
<th>State of Residence</th>
<th>Total Families</th>
<th>Urban Families</th>
<th>Rural Non-Farm Families</th>
<th>Rural Farm Families</th>
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</thead>
<tbody>
<tr>
<td>United States</td>
<td>10.7</td>
<td>9.0</td>
<td>15.0</td>
<td>15.8</td>
</tr>
<tr>
<td>Northeast</td>
<td>7.9</td>
<td>7.7</td>
<td>8.8</td>
<td>11.8</td>
</tr>
<tr>
<td>Connecticut</td>
<td>5.3</td>
<td>5.8</td>
<td>3.6</td>
<td>6.0</td>
</tr>
<tr>
<td>Delaware</td>
<td>8.2</td>
<td>6.9</td>
<td>11.6</td>
<td>10.5</td>
</tr>
<tr>
<td>Maine</td>
<td>10.3</td>
<td>9.2</td>
<td>11.3</td>
<td>16.8</td>
</tr>
<tr>
<td>Maryland</td>
<td>7.7</td>
<td>7.1</td>
<td>9.5</td>
<td>11.1</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>6.2</td>
<td>6.5</td>
<td>*</td>
<td>7.3</td>
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<tr>
<td>New Hampshire</td>
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<td>6.5</td>
<td>7.1</td>
<td>6.8</td>
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<tr>
<td>New Jersey</td>
<td>6.1</td>
<td>6.2</td>
<td>5.6</td>
<td>8.8</td>
</tr>
<tr>
<td>New York</td>
<td>8.5</td>
<td>8.7</td>
<td>7.2</td>
<td>9.8</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>7.9</td>
<td>7.7</td>
<td>8.2</td>
<td>11.7</td>
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<tr>
<td>Rhode Island</td>
<td>8.5</td>
<td>8.8</td>
<td>6.1*</td>
<td>11.2</td>
</tr>
<tr>
<td>Vermont</td>
<td>9.1</td>
<td>7.8</td>
<td>9.3</td>
<td>15.6</td>
</tr>
<tr>
<td>West Virginia</td>
<td>18.0</td>
<td>11.8</td>
<td>22.2</td>
<td>20.7</td>
</tr>
</tbody>
</table>

(a) Northeast region contains the Middle Atlantic and New England states plus Delaware, Maryland and West Virginia.


Table Two provides data which reflect variations in the incidence of poverty among the states in the Northeast region by place of residence in 1969. Data for the region has been recalculated to include Delaware, Maryland and West Virginia in order to conform the regional definition used by the Department of Agriculture. The incidence of poverty varied from a high of 18 percent of the families in West Virginia to a low of 5.3 percent of the families in Connecticut. In general the incidence was lower among urban families than among rural farm and rural non-farm families. However, the difference between urban and rural non-farm tended to be less pronounced than the corresponding differences for the U.S. as a whole while the differences between rural non-farm and rural farm were greater. This may be due in part to the suburbanization process since the incidence of poverty is lower among rural non-farm families than it is for farm families in the heavily suburbanized states of Connecticut, Massachusetts, New Jersey, New York and...
Rhode Island. In fact, in Rhode Island the rate of poverty among urban families was higher than the rates for both rural non-farm and rural farm families. In general, residential differences are less pronounced in the region with the exception of Maine, Vermont and West Virginia where poverty among rural farm families is more pronounced.

Thus, impoverishment varies by state of residence and place of residence within the Northeast region. Given the assumption that poverty is a function of individual and family characteristics and social and economic conditions, it seems realistic to assume that these factors may help explain the variations in the rate of poverty within the region. It also provides some explanation for the diversity in the conceptual perspectives of the participants in the project since these factors may also be related to the identification of effective "paths" out of poverty.

Conceptual Perspective

The term "conceptual perspective" is used rather than "theory" because of the interdisciplinary nature of the research on poverty and the issues described earlier in this report. "Conceptual perspective" implies a more general approach to the study of a phenomenon than does "theory". Theory has been the focus of attention of many writers such as Braithwaite (1960), Kaplin (1964), Stinchcombe (1968), and Wallace (1969). Theory is defined as "a deductive system in which observable consequences logically follow from the conjunction of observed facts with the set of the fundamental hypotheses of the system" (Braithwaite, 1960:9); as a "deductive system of law-like statements" (Madden, op. cit.,:101); and as "any set of symbols that is claimed verifiably to represent and make intelligible specified classes of phenomena and one of their relationships" (Wallace, 1969:3). In short, theory implies a logical set of generalizations or propositions which summarize existing knowledge, provides an explanation of the phenomenon, has predictive power, and gives direction to research. A brief review of the literature of sociology and economics suggests that the term "theory" is often misleading and that it would be more proper to speak of "theories" or conceptual models. Given the combinations of the issues presented earlier and the interdisciplinary nature of the research contained in the regional project, it seems more practical to refer to a "conceptual framework" which may encompass several different theoretical perspectives or conceptual models.

We have dealt with the issue of defining poverty and the identification of "paths" out of poverty earlier in this paper. Essentially, poverty was defined as a social phenomenon involving inequality and the idea of relative deprivation. Poverty also involves the functional combination of individual and family characteristics and socioeconomic conditions.
Following this aerinition of poverty, "paths" out of poverty was conceptualized as referring to changes in the determinants or properties of poverty focusing on either the modification of individual or family characteristics or changes in socioeconomic conditions. Concern over "paths" out of poverty shift the focus of the conceptual framework from providing an explanation for poverty and predictions of future impact of poverty in the Northeast to applying knowledge about poverty to the "real" social situation to more effectively meet the needs of the Impoverished and improve their relative position in the social system. From a relative perspective, the poor share unequally in the distribution of the resources and services valued by the system. Thus, strategies to improve the relative position of the poor can be viewed as Intervention programs which have an effect on the system.

The social system approach provides a broad base framework which can be utilized as a basis for the analysis of complex social phenomena such as poverty. The term "social system" has been used in a number of different ways by social scientists. Some sociologists such as Parsons (1951) and Homans (1950) view the social system approach as sociological theory—The "social system theory" presented by these writers is generally a modified continuation of the "mechanistic school" described by Pitirim Sorokin (1928). Others such as Buckley (1967), view the social systems as a model or an approach to the study of society which stems from general systems research developed since World War II. Thus, while the term system or social system is extensively used by social scientists today, there is considerable confusion over its exact meaning.

Buckley defines a system as "a complex of elements or components directly or indirectly related in a causal network, such that each component is related to some others in a more or less stable way within any particular period of time" (op. cit.: 41). The interaction of these components reflects a kind of "whole" which has some degree of continuity and definable boundaries. The relationship between the components within the system is based upon some flow of "information and energy". From this perspective a social system is a specific type of system which is composed of persons or groups of persons interacting with each other and bounded by their interrelated activities which together constitute a single "whole"—

Joseph H. Monane has defined social systems as "patterns of action of people and culture" (Monane, 1967:1). These patterns may involve one or many people and are based upon cultural phenomena such as shared norms, beliefs, ideas, symbols and artifacts. Attention can be directed toward the interaction within the focal system and/or the interaction between the focal system and its external environment including other social systems.

Systems may range in size from as small as the patterns of interaction between the individual and his family to as large as
society itself. Larger systems are generally more complex since they incorporate more component parts and more complex interrelationships. The component parts of larger systems such as a society or a community are often referred to as sub-systems but it is generally more convenient to think in terms of levels of system analysis. Stockdale and Schubmehl (1972:117-124) refer to four general levels of analysis: the societal level; the regional or area level; the locality (community) level; and the individual or family level. They suggest that "anti-poverty" research and activities should vary relative to the system level which is the focus of attention. Analysis focuses on the patterns of action between the individual and/or his family and the economic system, the political system, and other general "properties" of the social structure of the various levels. Intervention programs can be viewed as dynamic efforts to formulate new patterns of action or to modify the existing patterns.

First, the system approach provides a broad based conceptual perspective which can facilitate basic research on the linkages between low income individuals and/or families and other system components within the causal network of the system. Such research would provide information on the nature and characteristics of these linkages and the identification of factors which have contributed to impoverishment and which may hinder or block the climb out of poverty. As we noted earlier, this is the focus of several contributing projects.

Second, the system approach also provides a framework for the analysis of the effectiveness of various Intervention programs. If Intervention programs are defined as an effort to modify the causal network of the system to improve the "quality of life" of low income individuals and families, then the system approach provides a framework for the evaluation of the effectiveness of these programs. Such programs have more or less formalized goals and identified means through which their goals may be achieved. The introduction of a new program involves the establishment of new "patterns of action" between change agents representing the program and their clients. The exchanges which take place within these "patterns of action" becomes the focus for evaluative or applied research on the effectiveness of the programs (the means) in achieving its objectives. Such evaluation could focus on the relationship within the program between change agents and clients and/or the linkages between the program and systems in its external environment.

Finally, the system approach emphasizes the dynamic aspects of social change. Knowledge acquired through basic and applied research can be utilized to identify areas where Intervention programs can be most effective. Modification of existing "patterns of action" should take place within the context of the system's causal network since changes in relationship between selected components could have an impact upon other relationships. A failure to consider such relationships could result in the ineffectiveness
of the proposed program or changes in the causal network within
the system.

Discussion

The previous discussion presented a general conceptualization
of poverty and "paths" out of poverty which is generally
acceptable to the members of the Technical Committee. All of the
contributing projects did not utilize the system approach as a
framework for their analysis. However, it seems feasible to
utilize this general conceptual approach as a basis for synthe-
sizing the various contributing projects.

The following section covers general studies which are pri-
marily concerned with the general relationship between the im-
poverished and the community—Section two deals with state pro-
jects which focused more on the analysis of specific programs.
The compendium concludes with a general summary and an annotated
bibliography.

Paths Out of Poverty has achieved its primary objectives
to some degree. Its successes are reflected in the following re-
ports by the participating states and the attached annotated
bibliography. The reader will be the best judge of the overall
evaluation of the effectiveness of the regional project.
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SECTION I: GENERAL STUDIES ON POVERTY

INTRODUCTION

The research projects in two states, Maine and Connecticut, were based on the assumption that poverty is a consequence of a series of complex interrelated phenomena. These projects focused on the analysis of the importance of attitudes, sentiments and perspectives and their relationship to structural opportunities (jobs, increased income, education, and anti-poverty programs). It was hypothesized that the success of a community's efforts to reduce the impact of poverty was related to the attitudes and perspectives of the residents in the community as well as the structural opportunities available in the community. Thus, the focus of these projects is on the study of poverty in the community rather than specific anti-poverty programs.

In Maine, the research focused on the comparison of the attitudes, opinions and sentiment of families in poverty compared to the community at large. That part of the research reported in this section deals primarily with the analysis of the movement of a family out of poverty (or the lack of it) through a series of in-depth interviews with respondents whose family income was currently or had at some time been below the poverty level. These comprehensive interviews included both objective and attitudinal questions and incorporated several socio-psychological scales. It was hypothesized that individuals or families that "escaped from poverty" would differ from those who remained in poverty. Knowledge of these differences could make an important contribution to efforts to reduce poverty.

At Connecticut, the research was directed toward the study of poverty in a small urban area. A random sample of 535 residents in the community completed a structured questionnaire containing 81 questions to solicit background information on the respondents and their perspectives toward poverty, antipoverty programs and selected other phenomena including Dean's alienation scale. The primary purpose of this analysis was to compare the similarities and differences in responses of low income residents and the community at large. The basic assumption was that anti-poverty programs would tentatively be more successful when the perspectives of the respondents were similar. When differences were identified, they would be an indication of the need for expanded educational or public relations programs.

This introduction is the responsibility of Dr. W. H. Oroff of The University of Connecticut.
The research design and the results of these research projects are summarized in the following reports from the project leaders.

Summary and Conclusions

Although there are significant differences in the research design utilized in these two projects, the findings tend to be complimentary. In Maine, the findings indicated that those families or individuals who were making their way out of poverty were younger, better educated, had parents who were relatively more concerned about their children's education, and expressed a greater desire to have their own children reach a higher socially ranked occupation. Those families who remained in poverty could be categorized into at least two groups; those who were born into poverty and could be referred to as "generational" poverty cases; and those who were in "situational" poverty due to accidents, bad health, etc. The major difference between those persons who escape from poverty and those who remain impoverished can largely be traced to a combination of motivational factors (such as obtaining more education) and the presence or absence of negative situational factors such as poor health, accident and family situations.

The findings from the Connecticut project indicates that there were some significant differences in the attitudes and perspectives of lower class respondents and others in the community. In general, low income respondents tended to feel more alienated and were less favorably impressed with community services and more likely to favor support from the federal government. They also responded less favorably to older programs such as the welfare system. Lower class respondents also tended to feel less secure in their employment, had a lower participation rate in the political system and although they generally felt that education was important they expressed a need for a lower level of education among young people today.

Several tentative conclusions can be drawn from the findings of these two studies. First, there are differences in the experiences and attitudes of low income persons or families and those of the community at large. These differences effect the way the low income respondents perceive the community and the community's efforts to reduce poverty. Second, there are differences within the low income or poverty group which are related to their ability to "escape from poverty". Finally, remaining in poverty or "escaping from poverty" may be a consequence of the situation in the community, the family's situation or a combination of both. Riven this perspective, no single antipoverty program could be expected to meet the needs of all of those now in poverty. Understanding the community and the coordination of the community's antipoverty efforts to meet the varied needs of the poor in order to help them help themselves may be a significant factor in reducing poverty.
The phrase "paths out of poverty," as euphoric as it may be, implies a simplistic solution to poverty which does not exist in reality. If there are paths out of poverty they are complex and multidimensional Americans being instrumentalists, tend to look for simple instrumental answers to complex problems. Thus, in the 1960's with the establishment of federal poverty guidelines, levels, criteria, etc., it became normative to assume that a family was "in" poverty if their income fell short of the guidelines, but a family was "out" of poverty when its income exceeded the magic statistic.

The illogically of this assumption is closely analogous to an action of the Bureau of Census. In 1950 the unincorporated village of Dover-Foxcroft, Maine, was categorized as urban because its population was 2,566; in 1960 it was defined as rural because its census enumerated population had slipped below the magic rural-urban demarcating line of 2,500 to 2,481. By other criteria, including a modest suburban-like movement, the community had actually become more rather than less urban.

The Maine contribution to the NE-68 project was an attempt to more fully rationalize poverty status by determining more completely the factors which tend to keep some families in poverty while others are able to change their socio-economic status appreciably. The analytical techniques utilized which were mathematical rather than statistical were attempts to use objective criteria to quantify a subjective phenomena — poverty status.

Hypothetical Assumptions

As implied above, a major hypothetical assumption underlying the Maine study was that if indeed "paths out of poverty" exist, they consist, for most families and individuals, of a series of complex interrelationships. It was further hypothesized that the opportunity for a job or the opportunity to receive specific types of private and/or public aid does not necessarily constitute an escape from poverty. The new job and the benefits may well alleviate a depressed economic position but they may not serve as long-time eliminators of poverty for specific individuals.

In addition to structural opportunities (jobs, increased income, education) there must also be a willingness on the part of the family (individual) to remove itself from the stranglehold of poverty. Similarly, communities --

The author is Professor of Rural Sociology, University of Maine, Orono. Acknowledgement is given to Ms. Cristanna Cook who conducted the interviewing, to Ms. Devon Sapiel and Ms. Linda Morin who helped in the analysis of the data, and to Ms. Florence Bubar who did many clerical tasks.
their constituent legitimators including individuals, groups, organizations, government — through informal and formal (legislative) processes must provide the necessary supportive climate and channels for community members to improve their socio-economic standing on a permanent basis. Thus, the probability for families to improve their economic standing is enhanced if the community can and does provide an integrated approach to helping people help themselves.

In summary, it was a focus of the Maine NE-68 research that attitudes, opinions, sentiments on the part of families in poverty and on the part of the community at large are as important variables in the journey out of poverty as are actual economic opportunities. That part of the research being reported here focuses on the interrelationships among generally accepted objective criteria of poverty — relatively low (by relevant community standards) occupational, income, participational, educational, status — and more social psychological variables such as attitudes and opinions. It was hypothesized that persons who had once been in poverty but had "escaped" from it would exhibit a different configuration of objective and social psychological characteristics than would those persons who remained in poverty. It was for these reasons that the research design includes the use of semi-unstructured interviewing as well as the obtaining of empirical data by the use of a written schedule of questions. Several standardized social-psychological tests are also employed.

The Study

Sample — In order to determine the movement (or the lack of it) of a family out of poverty the normal method is use of the longitudinal model — following the selected sample over time. By definition, such a method is usually costly, both in terms of time and money. Because of the time constraints of the original NE-68 project as well as to economize, it was decided to synthesize a longitudinal sample. It was planned to accomplish this purpose by securing from the Maine Bureau of Social Welfare a sample of persons known to them five years prior to the beginning of the study. The sample was to be stratified into two groups: Those who had remained on public assistance roles and those who had become self-sufficient during the period.2

It was also decided to confine the sample to a given cultural-geographic area to minimize the problems inherent in sampling a more diverse universe. The area chosen, Knox County, however, is approximately representative of a large proportion of Maine's population.

In contacts with the Maine Bureau of Social Welfare the researcher was assured of both the interest of the Bureau in the study and of the complete cooperation at both the state and regional level. While personal contacts with both the state and regional directors remained cordial, in practice the "ideal" sample was not obtainable.

It is recognized that many families who may be in poverty are not necessarily on the roles of a public welfare agency. However, because of the twin problems of conceptualizing "poverty" and "non poverty" samples and locating them in a community framework, it was decided to operationalize past poverty status as being an ex-client of the Bureau of Social Welfare and present poverty status as being a current client of the Bureau.
Maine law forbade the state agency from releasing the names of its clients. The regional director construed this regulation to apply to former as well as to present clients. Contacts with potential respondents were made by the researcher preparing a letter, co-signed by the regional director, which was sent to prospective interviewees. The letter explained the major purposes of the study and requested the cooperation of the present and/or former clients. The response rate was less than 50 per cent. From the composition of the final sample it would seem that in addition to the biasing effects of the self-selecting process it is possible that the regional bureau was selective in delimiting the original universe. None of the respondents are obviously representative of the general public's conception of glaringly bad examples of welfare families — large numbers of illegitimate children, alcoholism, promiscuity, irresponsibility, etc.

The final sample consisted of 89 families, 63 of whom were conceptualized in terms of the adopted operational definition to be still in a poverty status, and 23 who are no longer considered to be in poverty (were no longer active clients of the Bureau of Social Welfare). In each case the head of household was interviewed. This person was asked to supply personal information on all present members of the household as well as for any former spouse(s). The additudinal and opinion data, including responses to social psychological scales, was obtained only for the head of household.

**Methodology** — In keeping with the theoretical orientation that poverty is more than a categorical classification, several research methodologies were employed to help insure that the respondents had the opportunity to provide information as to why they had continued to need public support or had become independent of public aid programs. Each respondent was interviewed three times over a period of approximately four months.

All interviews were conducted by a mature female graduate student in rural sociology, University of Maine, Orono. She was raised in Rockland, Knox County and was quite familiar with the status of low income people in the area. While she was empathic to the problems of low-income persons her undergraduate major in social anthropology as well as her graduate work in rural sociology appeared to help her maintain a satisfactory level of objectivity. The research director and the field worker held frequent conferences during the interviewing period. The meetings were used in part to check for interviewing problems including any possible over-identification with the respondents.

For each respondent, the first interview was conducted in a semi-structured, largely open-ended fashion and was recorded on audio tape cassettes.

As a methodological note, it was discovered that tapes having recording capacities greater than 60 minutes per side tended to be less reliable in their operation than were the shorter tapes. Several 60-minute per side tapes became snarled during the original taping or in the later transcribing process. The interviewer reported that no respondents were visibly upset by the use of the recorder. Responses did not appear to be affected by the taping process. A minor problem of extraneous noises did occur in some taping sessions. Sources of the background noise were primarily radio and television programs, conversations taking place in the same room, and the interruptions of small children. The main effects of these situations was to introduce difficulties in the transcribing process.
The research design called for the interviewer to question the respondent in several major areas including past and present economic and social status, past and present family relationships, occupational and educational achievements, participational patterns, family composition and relationships. While the interviewer made an effort to cover all designated areas an attempt was made to keep the conversation as informal and natural as possible. A written schedule was not used, but the interviewer usually kept a card in her hand which contained a check list of the major topics to be covered.

Rapport between the interviewer and respondent was excellent even though some respondents, primarily because of personal articulation problems, did not answer the questions as fully as might have been desirable.

The second interview was conducted by use of a comprehensive 19-page structured schedule of questions. The modal length of time per interview was approximately an hour. Both to provide empirical documentation and a basis for comparison of response patterns between less structured and more structured interviewing techniques many of the questions asked during the original taped interview were repeated. The schedule contained questions pertaining to family composition, marital status, occupational and educational attainments of the present family as well as parental families. Both objective and attitudinal questions were asked about major facets of individual and family life including an inventory of formal and informal activities. The well known "Srole Scale" (Srole, 1956) was also included.

The third interview, conducted in most cases about a month after the second one, consisted of three sections. The interviewees were asked to respond to the socio-psychological scales developed by Rotter, (1966), Nettler, (1957) and Rosenberg, (1956) as well as to provide information relating to income sources. In addition they were asked to give their reactions to a set of photographs which, it was hypothesized, would elicit responses which would reveal significant attitudes about their self images as present or past recipients of public aid.

Although the study was originally designed to test certain hypothetical assumptions as discussed above, it was also conceived as a pilot study. Specifically in addition to testing substantive hypotheses we were interested in determining if a type of cross sectional sample could serve in lieu of a longitudinal panel. We were also interested in the effects of the tape recorder on the interview setting, and the correlation between answers to the same or similar questions obtained by more or less non structured interviewing, and responses to a structured schedule of interviewer administered questions.

Although no total item by item analysis was made of the response patterns between the two sets of interviews, a careful review of the data for a few respondents and a less rigorous examination for the rest of the sample indicates that there were no significant variations in the responses from the more open-ended taped interviews and the more structured written schedule of questions.
The Findings

It was originally hypothesized that the two groups of respondents — those continuing as recipients of some type of public aid and those who no longer were receiving public aid — would differ significantly in objective terms (occupation, education, participational patterns) as well as in subjective terms (attitudes, opinions, values). Although much of the data does reveal both objective and subjective differences between the two groups, the differences, as detailed below, are generally not of great magnitude.

Why the differences between the two groups are neither great nor wholly consistent is conjectural. As indicated earlier, there is evidence of imperfect sampling. The persons who agreed to be interviewed were from a list provided by the regional Bureau of Social Welfare. While none of the former aid recipients had become outstanding economic successes there was considerable evidence that they had improved their position from what it had been. On the other hand, those persons categorized as continuing on public aid rolls were not the archetypal welfare cases.

To refine the analysis, detailed study was made of the data pertaining to the ten respondents who were judged by the interviewer to represent those persons who best exemplified the escape from poverty. Additionally, detailed analysis was made of the data pertaining to the 12 respondents who were judged to have made the least progress in changing their position.

As indicated in the accompanying footnote the analysis of the taped interview was accomplished by quantifying the data. Data from all three interviews was transferred to large analysis sheets, a line being reserved for each respondent. To rationalize the analysis and to keep it consistent with the theoretical frame of reference, data were grouped in the following classifications (the phrases in the parentheses are examples of the various elements included in category):

Parental family's socio-economic level (family's income level relative to community standards).

Alienation related to respondent's parental family (degree of shame, pride felt toward parents).

Respondent's present feelings of self alienation (feelings of personal shortcomings).

Respondent's attitude toward community and public aid services (positive, negative attitudes toward public aid officials).

Degree of respondent's psychological association and identification with the community (sense of community identification).

In addition to interviewing each respondent three times, the interviewer working from a typed transcript quantified the initial taped interview. One page of the form used to quantify the taped interviews is included in the Appendix.
Identification with and knowledge of educational opportunities (awareness of educational opportunities).

Degree of conformance to community ("middle class") characteristics.

Mathematical averages were computed for each of the various indices for the two groups.

Respondents Family of Orientation

Responses of the interviewees during the first (semi-structured, taped) interview to questions about their relationships with their parental families during the respondent's premarital years are not wholly in the hypothesized direction. On the basis of responses to additional questions the ex-clients' relationships with their families were judged to be somewhat less positive than were the clients. On the other hand, judging from the respondent's responses to objective type questions, the ex-clients appeared to have been more involved with their parents than were the clients. For example the ex-clients reported having both more work and recreational experiences with their fathers than did the clients.

The ex-clients' parental families were considerably more middle class-like than were the parents of the clients. For example, two of the ten ex-client respondents' fathers worked as laborers most of their lives. In contrast ten of the 12 client respondent's fathers were laborers. Fathers of the ex-clients were more regularly employed than were the fathers of the clients.

Differences (by normal middle class standards) in favor of the ex-clients' families over the clients' families also existed in regard to the respondents' estimate of their families' income during the time they lived with their parents. A portion of the income difference between the two groups was probably accounted for by the differences in educational attainment between the fathers of the two groups of respondents.

Four of the ten ex-client respondents had fathers who had at least finished high school. One of the twelve clients' fathers had attained this level of education. While all of the ex-clients were able to report the years of school completed by their fathers, four of the clients were not able to do so. Nine of the 10 ex-clients reported that their families had encouraged them to get an education. Six of the 12 client families were reported as having encouraged them toward educational attainment. Five respondents from each group indicated that they had been read to as a child at home.

Both groups of respondents came from relatively large families. While they were growing up the family size for the ex-client group was 6.1 persons. The comparable figure was 7.1 for the client group.

For purposes of convenience, those respondents who were identified as being former clients of public aid programs will be designated as "ex-clients", those respondents who continue to be recipients of public will be designated "clients"
Respondent's Present Family

There were considerable variations in the demographic characteristics of the two groups of respondent households. All ten of the ex-clients respondents were female. Nine of the client respondents were female. The ex-clients were younger (average age 33.1) than the clients (average age 38.2). One of the ex-clients was over 50; four of the clients were over 45. Three of the ex-clients were presently divorced and seven were presently married. Four of the clients were divorced, four were married, three were single, and one was widowed.

There were children in all of the respondent homes, but the average number was greater for the clients (5.1 per household) than for the ex-clients (3.2 per household). In seven of the 12 client households there were four or more children as compared to three of the ex-client households.

The somewhat younger age of the ex-client respondent might be related to their higher level of education compared to the client respondents. Considering only elementary and secondary education, the average years of school completed for the ex-clients was 10.5 compared to 8.8 for the clients. Of the ten ex-clients, one had one year of college, five had completed high school and two had earned high school equivalency certificates. Of the twelve clients, one had finished high school and one had obtained a high school equivalency certificate.

There were slight differences in employment patterns between the two groups. Among the ex-clients five were working full time, two were working part time and three were full time housekeepers. Among the clients three were working full time, three were working part time, five were full housekeepers and one was retired.

In summary the ex-client respondents were somewhat more "normal" in their demographic characteristics than were the client respondents. The ex-clients were more apt to be married, have smaller number of children, and achieved higher levels of education. They were also younger and a somewhat greater proportion were employed.

Self Evaluations

Although the actual degree of differences are relatively slight, the ex-clients, as a group, tend to have better images of themselves than do the clients. It should be noted that "better" in the context used here means closer conformance to accepted middle class norms. It is possible that in some lower socio-economic subgroups the accepted norms relating to self-image could be at variance with those of middle class American society.

The following conclusions were reached through an analysis of the responses made by the respondents during the three interviews held with each of them. In some cases one or two questions per interviewee are involved, in others many responses per interviewee were evaluated before the conclusion was reached.
In contrast to the clients, the ex-clients express:

- fewer evidences of shyness, reticence to interact with others.
- greater expressed belief that there will be improvement in their economic position.
- higher level of belief that individual effort is needed to effect change in one's own situation.
- a more realistic assessment of their family and economic situations.
- both more awareness and critical attitudes toward their own personal shortcomings.
- less pessimistic attitudes toward life in general.
- a willingness to make greater efforts to overcome unemployment status.
- a higher evaluation of the abilities of themselves, their spouses, and their children.
- a more positive attitude toward change.
- more feelings of security.
- more positive attitudes toward their marriage.

As mentioned above these conclusions are based on an analysis of data from all three of the interviews. Although the bulk of the data do support the contention that the two groups do vary by attitudinal orientation, none of the four social psychological scales (Nettler, 1957), (Rosenberg, 1956), (Rotter, 1966), (Srole, 1956) nor the photograph reaction test proved to be highly discriminative between the two groups of respondents. For each test, however, the score differences between the two groups was in the hypothesized direction. That is the ex-clients responded somewhat more frequently in the "normal" manner. The most discriminative of the tests was the Nettler alienation scale (Nettler, 1957). One significance of this fact may be that the Nettler scale questions, taken as a group, are less introspectively oriented than are the questions comprising the other three scales.

In contrast to the other scales, at least seven of the seventeen Nettler scale questions are queries about participation in organizational or community activities. There is less of an attempt to probe into the social psychological attitudes of the respondent. Thus it may be that whatever differences exist between the two groups of clients may be revealed more accurately by directly assessing their ability (including community offered opportunities) and willingness to participate in the fabric of society rather than in probing their motivations by indirect means.

Conclusion

A main purpose of the NE-68 research project in Maine was to determine whether or not it would be possible to assess the combination(s) of factors which hold families in poverty status and those combinations of factors which enable families to emerge from poverty. A major problem in reaching this goal was a problem in sampling. Theoretically it should be possible to select

'For a discussion of the degree of interrelationship between the four scales see Cook (1972).
a cross-sectional sample by the use of a synthesized longitudinal sample by the methods previously cited. Despite the problems inherent in the selected sample, differences in the hypothesized directions were found to exist between the so-called client and ex-client groups.

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APPENDIX A

KNOX COUNTY STUDY
Taped Interview
Number ______
Coder ______

A. RESPONDENT'S FAMILY OF ORIENTATION

1. Respondent's feelings toward home life

   a. Estimate of difficulty experienced
      | No | Great |
      | 0  | 5    | 10  |
      | DNA | NLQA | NQR |

   b. Neglect or indifference by parent or guardian
      | No | Much |
      | 0  | 5    | 10  |
      | DNA | NLQA | NQR |

   c. Respondent's attitude toward parents or guardian
      | Very | Somewhat | Positive | Positive |
      | I   | I      | I       | I        |
      | 0   | I      | I       | I        |
      | DNA | NLQA   | NQR     |

   1. Felt resentment toward parents
      | No | Great |
      | 0  | 5    | 10  |
      | DNA | NLQA | NQR |

DNA Does Not Apply
NLQA No Leading Question Asked
NQR No Quantitative Response
Poverty has been a major concern in our society during the last two decades. Attention has largely been directed toward poverty in the "ghettos" of large cities or "pockets" of poverty in rural areas where its impact is more highly visible. Smaller urban areas and much of rural America have not received equal attention since poverty and low income in these areas is less visible and antipoverty efforts are often poorly organized (U.S. Government Printing Office, 1967). The purpose of Connecticut's contributing project to NE-68 was to study poverty in a small urban area. An emphasis was placed upon the analysis of variations in the perspective on poverty and selected antipoverty programs among the residents of the area.

The town of Windham was selected as the study area for a number of reasons. Windham contains the city of Willimantic, the largest city in Northeastern Connecticut. Willimantic, which had a population of 14,462 in 1970, serves many of the needs of a thirteen town region defined as the Willimantic Labor Market Area. This area has a relatively high rate of unemployment and relatively low median incomes and is located on the fringe of several larger and more rapidly growing metropolitan areas (Groff and Tomashek, 1972A).

During the last decade the population of the town of Windham increased from 16,973 in 1960 to 19,624 in 1970, an increase of 15.6 percent compared to the 19.6 percent increase for the state. The population of the city of Willimantic increased by only 3.8 percent over the decade. Thus, like many other urban areas the greatest population increases have occurred in the area outside the city limits. According to the 1970 Census, 6.4 percent of the family units in the town had incomes below the level of poverty established by the Office of Economic Opportunities, over 14 percent of the family units had an annual income of less than $5,000, and approximately five percent of the labor force was unemployed (Steahr, et. al., 1974). Thus, although the town might be viewed as affluent in comparison to some other areas in the Northeast, poverty does exist and presents a serious problem to many individuals and families.

The author is Associate Professor of Rural Sociology at the University of Connecticut. The author wishes to acknowledge the contributions of research assistants Mr. John Wright and Mr. Don Tomashek in data collection, coding and processing.
Despite the fact that Windham had a relatively high rate of unemployment, it experienced a relatively large in-migration of Puerto Ricans since 1960. In 1960 only 54 residents of Puerto Rican extraction lived in the town. By 1970, there were 630 persons either born in Puerto Rico or of Puerto Rican parents and a total of 902 Spanish speaking residents in the town. This in-migration of Puerto Ricans during the decade raises some interesting questions concerning the impact of poverty in the area.

In short, the town of Windham provided an ideal location for survey research on the attitudes and perspectives of its residents toward poverty and antipoverty programs. The population of the area is small enough to facilitate a random survey of family units without incurring excessive costs for travel and other considerations.

**Conceptualization**

Poverty is a complex interrelated set of factors which keep individuals in a disadvantaged position relative to others in the community. It is also relative to time and place and the circumstances of the individual and/or his family (Ferman, et al., 1969:1-6). Income has generally been used to provide a definition of poverty but it fails to take into consideration the relative nature of human "needs" and its socio-psychological implications. Although income may be a good indicator of poverty it is important to view poverty from a broader perspective as a complex network of interrelationships relative to time and place. A basic premise of this study is that the impact of poverty can best be analyzed through the social system approach.

The system approach places an emphasis on interrelationships between the elements within a system and between the system and its external environment. It provides a broad-based framework within which poverty can be analyzed as a relative concept involved in the complex interrelated matrix of the system. Several recent books have discussed the advantages and disadvantages of the social system approach and its potential uses for socioeconomic research (Buckley, 1967; Monane, 1967; and Anderson and Carter, 1974). Buckley defines a system as "a complex of elements or components directly or indirectly related in a causal network, such that each component is related to at least some others in a more or less stable way within a particular period of time" (Buckley, 1967:1). A social system is a specific type of system which is composed of persons or groups of persons interacting with each other and bounded by these interrelated activities that together constitute a single entity. Thus, a social system is as large as the action and objects which are included in the network of relationships of concern to the observer. The emphasis is placed on the interaction between persons and other units and not on individual or group characteristics. System interaction involves the exchange and information between the components within the system and between the system and its external environment.
Given this perspective, the town of Windham can be defined as the focal social system. The analysis focuses primarily on relationships between individuals and sub-system components of the focal system such as the educational, political, and economic sub-systems and between the focal system and other systems in its external environment. Poverty is also treated as a sub-system or quasi sub-system involving the relationship between low income individuals and anti-poverty programs as well as relationships to other sub-system components. The survey was designed to solicit background information on the respondents and their perspectives toward poverty, antipoverty programs and selected other phenomena related to the focal system.

Sampling and Procedures

Data In the survey was collected through the use of a structured interview schedule containing 81 questions and leading to the generation of approximately 190 variables.

A ten percent random sample of household units was selected from a listing of all household units made available by the town's tax assessor office. This listing included apartment units as well as single family dwellings. A supplementary sample of ten percent of the household units in the low income areas of town designated by experts in the community was also utilized to facilitate the comparison of low income groups with other income groups in the town. It was decided that only an adult member of household units containing a family as defined by the U.S. Census should be interviewed for the survey. As a result, 208 of the 817 household units selected in the sample were not interviewed since they did not meet the stipulated requirements, leaving a total of 609 households eligible for the survey. A total of 535 interviews were completed giving a return rate of approximately 88 percent. Four call backs were made over a several week period and only 12 family units could not be contacted. As a result of the sampling procedures noted, 27 of the completed surveys represent a 10 percent sample of family units in the town and 108 are a result of over sampling in the designated low income areas. Since the findings reported in this paper are derived from a comparison of income groupings, the total sample was used in the analysis.

The data were coded and processed through the use of the Statistical Package for the Social Sciences Program (Nie, et. al., 1970). The University's computer facilities were made available under a grant funded by the National Science Foundation (Grant GJ-9).

Social class was used in the cross-tabulation upon which the findings reported below are based. The index of social class was derived from the data collected on education, occupation and family income and based upon the procedures used by W. Lloyd Warner (Warner, 1960). Three social classes were utilized. A lower class made up of individuals on welfare or holding
unskilled and semi-skilled jobs, having less than a high school education and average family income of approximately $4,300. A middle class who generally worked at skilled occupations, held clerical and sales positions, having a high school degree and some training or education beyond, and an average annual family income of approximately $8,900. And an upper class composed primarily of managers, professionals and technicians who held college degrees and had an average annual family income of approximately $13,000. The development of this index is discussed in more detail in an earlier report (Groff and Tomashek, 1972B: 72-74). In this analysis the lower class group is considered to be the most disadvantaged. Respondents in this group generally had incomes marginal to or below the poverty level for 1969.

Since this index is based upon the data collected it should not be viewed as representative of class in our society.

The findings are reported on the basis of the percentage distribution of the responses of the various social classes to questions related to selected dependent variables. Various statistical tests of differences were used in evaluating the significance of the differences of the distribution of responses but will not be covered in this report. Unless it is noted otherwise, the difference between classes was significant with a probability of error of less than .05 based upon the Chi-Square Statistical Test. Since the sample size is relatively large this measurement should be viewed with caution.

Characteristics of Sample

The sample generally compared favorably with 1970 Census data on household units and adult members of families in the area. Sampling procedures were designed so that the sex ratio of respondents was comparable to the projected sex ratio in the area. Females may be slightly overrepresented in the sample since 56.4 percent of the respondents were female. However, the proportion of female respondents varies directly with social class with approximately 62 percent of the lower class females compared to 99 percent of the upper class. This may be primarily a consequence of the differences in marital status observed for the various social classes. Only 72 percent of the lower class were presently married with both husband and wife present compared to approximately 95 percent of the upper class respondents. Lower class respondents also tended to be slightly older than middle and upper class respondents with 23.2 percent of the lower class respondents 60 and over compared to 9.5 percent of the middle class respondents and only 8.3 percent of the upper class respondents. Approximately 82 percent of the Spanish language respondents and 56 percent of the French-Canadian respondents were also identified as lower class. Thus the lower class also contains a larger proportion of the elderly, members of families headed by a single individual, and members of ethnic and minority groups.
In short, the characteristics of the lower class are similar to those expected of low income persons on the basis of other findings from studies on the distribution of poverty in the United States (Ferman, et al., 1969: 134-216).

Discussion of Findings

The following discussion is based upon data presented in a tabular form in an earlier report (Groff and Tomashek, 1972B). For analytical purposes, the lower social class is equated with poverty. In general, attention will be directed toward relationships which may be influenced by differences in social class positions rather than relationships which tend to characterize the various social classes since these findings tend to reflect the expected patterns based upon previous studies (Hodges, 1964; Bendix and Lipset, 1958).

Low Income and the Economic Sub-System

By definition, income and occupational status are directly related to social class. Lower class respondents had an average family income of approximately $4,300 and were primarily employed in semi-skilled or unskilled occupations. Over 75 percent of the lower class families were dependent on welfare and approximately 28 percent had been unemployed at some time during the two years previous to the survey compared to 18 percent and 7 percent of the middle and upper classes, respectively.

There are three related areas which are of special interest to this report. First is the perspective on job opportunities. Although a larger proportion of lower class respondents were in-migrants to the area than were middle class respondents and only a slightly smaller proportion than the upper class (76 percent compared to 65 percent for the middle class and 78 percent for the upper class), they were less likely to have migrated to the area for job opportunities. Only 41 percent of the lower class compared to 56 percent of the middle and 57 percent of the upper class reported job opportunities as the major reason for moving to Windham. In contrast, over 51 percent of the migrant lower class reported that they had moved to Windham for personal reasons such as friends or relatives living in the area.

The respondents were also asked to evaluate job opportunities in Windham. The findings followed the expected pattern with 55 percent of the lower class respondents rating job opportunities as poor compared to 48 percent and 30 percent of the middle and upper classes, respectively. This raises several interesting questions concerning the reasons for the relatively high migratory status of the lower class. It is interesting to note that 38 percent of the lower class had lived in Windham less than 10 years while approximately 36 percent were residents of the area for more than 30 years. The recent in-migration of
Puerto Ricans provides a partial explanation but a more detailed analysis of both in and out migration could provide needed information on the relationship between migration, social class, and the economic system.

A second area is concerned with job security and the evaluation of unemployment compensation. Respondents who were employed at the time of the survey were asked to indicate how secure they felt their jobs were. Over 22 percent of the lower class felt unsure of keeping their jobs compared to less than 15 percent of the middle class and less than 6 percent of the upper class, a pattern which could be expected based upon the two year unemployment experience noted above. Thus, the lower class would be more likely to be directly concerned with unemployment compensation than either the middle or the upper class. Although all of the classes gave unemployment compensation a favorable rating a higher proportion of lower class respondents rated it unfavorably or were unsure of its effectiveness. These findings suggest that there may be a relationship between actual contacts with the unemployment compensation program and perspectives on its effectiveness.

The third area of interest concerns union membership and union effectiveness. In the sample, approximately 56 percent of the lower class and 53 percent of the middle class head of households were members of labor unions compared to approximately 18 percent of the upper class. There tended to be an inverse relationship between favorable responses on the effectiveness of labor unions and social class. Only 56 percent of the lower class favorably evaluated labor unions compared to 62 percent of the middle class and 63 percent of the upper class. Once again, 20 percent of the lower class respondents were unsure of the effectiveness of labor unions, a sizeable proportion, while approximately 31 percent felt they were doing a poor job compared to 28 percent and 22 percent of the middle and upper classes.

In general, throughout the survey, a larger proportion of the lower class tended to be unsure when asked to respond to a question on evaluation or their perception of a particular phenomenon. We will return to this issue later in the report.

In summary, a larger proportion of lower class respondents tend to be marginally linked to the economic sub-system. The lower class is unemployed more often and for longer periods of time than either the middle or upper class. They tend to be less secure in their jobs and less favorably inclined toward both unemployment compensation and labor unions despite the fact that these organizations are intended to aid those individuals who are insecure in their employment and may be subject to economic fluctuations.
The recent in-migration of Puerto Ricans follows a pattern established several decades ago when members of other ethnic groups including the French Canadians also migrated to the town. It may be that the community serves as an assimilating unit for low income migrants providing mechanisms for social mobility. Further research on this possibility might provide greater insight into the unique role of small communities in providing for the upward social mobility of low income groups.

Low Income and the Political Sub-System

The discussion of relationships between social class and the political institution will focus on party preferences, voting records, and political participation. Party preferences of the lower class were similar to those of the middle class but significantly different from the upper class. Both the lower and the middle class were predominantly Democratic in their preferences with Republican and Independent as distant alternatives. The upper class were more equally divided between Democratic, Republican and Independent in their preferences. Perhaps the most striking difference is in the proportion of the classes which had no political preference. Over 10 percent of the lower class respondents expressed no preferences compared to only 2 percent of the upper class.

Respondents were asked a series of questions related to their voting records and participation in political activities. Voting and attendance at local town meetings varied directly with social class. Lower class respondents were less likely to vote in both national and local elections and nearly 69 percent had never attended a town meeting compared to 56 percent of the middle class and 39 percent of the upper class. In short, lower class respondents were less actively involved in the political sub-system but their involvement was greater in national elections than in local elections. When asked to evaluate the job done by local officials, they gave local officials a lower rating than both the middle and upper classes. They also tended to favor assistance from the federal government for the impoverished more than did the other classes. Thus, although the political activities of the lower class are limited, they appear to be more favorably inclined toward the federal government or the external political system than toward the local political sub-system.

Low Income and the Educational Sub-System

The number of years of education completed by respondents is inversely related to social class. Approximately 58 percent of the lower class had not gone beyond the eighth grade of school compared to only 5 percent of the middle class and less than 1 percent of the upper class. However, over 86 percent of the lower class felt that they needed more education. Thus, although lower class respondents were generally poorly educated they appear
to recognize the importance of education today. On the other hand, in response to a question on the education needed for young people today, lower class respondents generally indicated a lower level than both the middle and upper class. Only 38 percent felt that a college degree or professional training was necessary compared to 65 percent of the middle class and 60 percent of the upper class.

When asked to evaluate the school system in Windham the majority of the respondents in all three social classes felt that the system was doing a good job. However, approximately 13 percent of the lower class felt it was doing a poor job compared to 7 percent of the middle class and 5 percent of the upper class and approximately 32 percent of both the lower and middle class respondents felt that it was doing a fair or poor job compared to only 20 percent of the upper class respondents.

The findings tend to suggest that lower class respondents recognized the significance of a lack of adequate education but that their aspirations for their children were not as great as those of the middle and upper class respondents.

Class and the Religious Sub-System

Approximately 70 percent of the lower class respondents reported a preference for the Catholic religion while an additional 25 percent expressed a preference for either Jewish or Protestant religious groups. Only approximately 3 percent reported a preference for no established religion. In general, both preferences for the three major religions and a preference for no religion were directly associated with social class. Regular church attendance was directly related to social class with only 39 percent of the lower class reporting weekly attendance of church services compared to 75 percent of the middle class and 65 percent of the upper class. Thus, while a larger proportion of the lower class expressed a preference for an organized religion, a smaller proportion attended church services on a regular basis. The middle and upper class respondents are more likely to attend church services on a more regular basis even though a larger proportion expressed a preference for no religion. Religious relationship may be less significant for lower class respondents as a linkage to the broader community.

Social Class and the Community System

The respondents were asked to evaluate the services of selected institutional sub-systems and the community as a place to live. Several of these have been briefly discussed above. Respondents were asked to evaluate Windham as a place to live and to evaluate the services of the police and town officials, housing conditions, schools and school officials, and job opportunities. Schools generally received the highest favorable ratings followed by the community as a place to live. Overall the
schools and the community as a place to live were rated good to very good; the police and town officials, fair to good; and housing and job opportunities, fair to poor. With the exception of police service, where the three classes ranked the service about equally, the rankings varied directly with social class. Despite the fact that only 16 percent of the lower class felt that job opportunities were good and only 2k percent felt housing conditions were good, over 54 percent of the lower class rated Windham as a good place to live.

These findings suggest that the respondents were considering additional factors other than those noted in their overall evaluation of the community. A clue to what these other factors may be is indicated by the fact that the majority of the lower class in-migrants came to Windham for "personal reasons" rather than perceived economic opportunities. It seems possible that personal relations may play an important role in an individual's evaluation of his place of residence.

Several questions were also asked concerning the equality of the services provided and the equality of opportunities in the town. The preliminary analysis of these questions suggests that there are significant differences in the perspectives of the various social classes. Respondents were asked to indicate which groups they thought were discriminated against by officials in the local government and by the police and courts. Only 24 percent of the lower social class felt that no one was discriminated against by local government officials compared to 41 percent of the middle income group and 43 percent of the upper income group. Over 56 percent of the lower income group felt that persons with low income and members of minority groups were subjected to discrimination.

The sample indicated a higher level of confidence with the police and courts than with town officials but this was also directly related to social class. Approximately 43 percent of the low income group compared to approximately 58 percent of the middle and upper income respondents felt that no one was discriminated against by the legal authorities. Approximately 4k percent of the lower income respondents felt that lower income residents and members of minorities were discriminated against.

These tentative findings seem to suggest that members of the lower social class have less confidence in the political and legal sub-system in the community and are more likely to feel that low income individuals and members of minority groups are subject to discrimination. It is interesting to note that greater confidence is placed in the police and court system which is more likely to be directly or indirectly effected by the external systemic environment of the area.

The sample was also asked to identify who benefits most during periods of prosperity. Once again there appear to be fairly
strong differences in the perceptions of the various income groups. Only 21 percent of the lower income respondents felt that every­
one benefitted while 54 percent singled out the upper class, businessmen, and politicians. A significantly larger proportion of middle and upper income respondents felt that everyone bene­
fitted. It is interesting that only approximately 14 percent of the upper and middle income groups singled out the upper class compared to approximately 27 percent of the lower class while a slightly larger proportion of upper and middle income groups felt that business benefitted the most. None of the income groups felt that good times had any appreciable impact on the lower income group or minority groups.

Social Class and Alienation

As part of the random survey done in Windham we administered a measure of alienation to our sample. This measure, known as the Dean Scale, consists of twenty-four statements to which the respondents could answer: Strongly Agree; Agree; Uncertain; Dis­­ag­ree (Miller, 1971:323-326). This scale can also be broken down into three sub-scales measuring powerlessness, normlessness, and social isolation.

In our preliminary analysis of the data we compared aliena­
tion and the sub-scale scores by income, occupation, and educational level. We found that alienation scores vary inversely with income level (i.e., low income respondents tend to score higher on alienation). This pattern generally also held true for the sub-scales.

In comparing alienation scores by occupational levels we found that the same sort of relationship held. Persons in the higher occupational groups display less alienation. One surprising result, however, was found in that the professional-technical respondents scored a good deal higher than had been expected. This may be a reflection of the conflict between organizational needs and the principles associated with a profession.

The relationship between alienation and educational level followed the same general pattern as the other scales. In other words, people with higher educational attainment tend to score lower on alienation.

The relations which hold for alienation also hold for the sub-scales with one notable exception - the social isolation scales show an inconsistency which requires further analysis. The results of this additional investigation will be presented in a future paper.

In summary, persons with low income, low education, and lower level occupations seem to score higher on alienation than do persons with higher education, etc. These findings imply that factors commonly associated with poverty, such as poor jobs and
lack of education, are associated with feelings of alienation.

**Summary**

The findings discussed above indicate that the lower social class is less actively involved in the institutional sub-systems in the area, have a less favorable perspective of the community and are less confident of local officials. In short, they appear to have a different linkage to the community and its sub-systems and are less confident of equal treatment. This suggests that income and class membership may contribute to differences in the perspective on poverty and the effectiveness of various anti-poverty programs. It also seems probable that the lower class may be more supportive of programs which are initiated by the external system to deal with poverty and social mobility.

**Perspectives on Poverty**

This section is concerned with the effect of income and social class on the respondent's perspectives toward poverty. Data from the 1970 Census indicate that 314 families or about 6.4 percent of the family units in the town of Windham had incomes below the poverty level established by the Federal Interagency Committee. The cutoff for this index in 1969 was $3,743 for a nonfarm family of four but increased to $4,110 for 1972, the approximate time at which this survey was taken.

The respondents were asked how much family income was needed for a family of four to live comfortably in Windham. Although this cannot be viewed as synonymous with the level of poverty, it does provide an indication of the annual income which the various classes feel is necessary. The lower class thought that $7,250 was necessary compared to $7,350 for the middle class and $6,800 for the upper class. While these differences are not significant they do indicate that the difference between the defined poverty level and the annual income required to live comfortably is lower for the upper class than for the middle and lower classes.

It was also observed that the lower class felt that a larger proportion of the families in Windham had annual income insufficient for a decent level of living than both the middle and upper class. Although all three classes tended to overestimate the proportion of families in the town living on family incomes below the poverty level the lower class clearly felt poverty was more extensive than both the middle and upper classes.

When the respondents were asked to compare their annual income with others in the town, approximately 35 percent of the lower class and 57 percent of the middle and upper class reported their income was average. A comparison with reported annual incomes indicates that the lower class tended to significantly over estimate their relative position in the community while the upper class clearly underestimated their relative position.
The questionnaire contained a question related to the most important reason for poverty. Responses were classified into three categories; economic conditions which included lack of job low wages, and lack of opportunity; social conditions which included poor education or training, discrimination, and lack of proper counseling; and individual reasons such as lack of motivation, mismanagement of money, and the welfare system. A significantly higher proportion of the lower class cited economic conditions as the major cause of poverty while the middle class cited social conditions and individual reasons about equally. Individual reasons were cited most often by the upper class. Thus, the upper class respondents were more likely to see poverty as an individual phenomena while the middle class tended to see it as a result of both social conditions and individual reasons. It appears as if the middle class recognized the structural problems related to poverty but may feel that individuals do not take advantage of the opportunities available.

In summary, the findings indicate that there are significant class differences related to perspectives on the nature of poverty, the extent of poverty in the area, and the major reason for poverty. More lower class respondents felt that poverty was largely an economic problem and that it was more extensive in the area than both middle and upper class respondents. They also seemed to favor a higher income cutoff point and felt that both the federal government and the local government should be doing more to alleviate the problem. Upper and middle class respondents tended to favor a lower income cutoff point and either felt that government was doing enough or should do less.

In short, there are significant class differences which could have a bearing on the evaluation of the performance of various antipoverty programs.

Perception on Antipoverty Programs

The respondents were asked to evaluate the services provided by fifteen social service organizations or social action agencies. These responses were classified as favorable or unfavorable with a third category of "uncertain" or "unsure". Table One lists the rank ordering of the programs for the three social classes based upon the proportion of favorable responses. The differences in the rank order by the three social classes is significant at the .05 level using the Spearman rank correlation coefficient techniques \( r_s \). This table should be viewed with caution since the reciprocal of the favorable responses represents both unfavorable and "unsure" responses. The range in the proportion of favorable responses varied directly with social class. The range for the lower class varied from a high of 75% percent for Social Security to a low 27 percent for family planning programs for the poor. The range for the middle class varied from 88 percent favorable for Social Security to 31 percent favorable for VISTA volunteers while the range for the upper class varied from 91 percent for Social Security to 41 percent
for the Windham Community Action Program. In general, the more traditional programs, with the exception of food stamps, were ranked higher by the lower and middle classes while food stamps and the welfare program were ranked significantly lower by the upper class. Only one program, the Windham Community Action Program received less than 50 percent favorable responses from the upper class compared to 7 programs for the lower class and 8 programs for the middle class.

Table One: Rank Order of Favorable Response to Selected Social Action Programs by Social Class.*

<table>
<thead>
<tr>
<th>Program</th>
<th>Lower Class</th>
<th>Middle Class</th>
<th>Upper Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Security</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Salvation Army</td>
<td>2</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Welfare Program</td>
<td>3</td>
<td>7</td>
<td>13</td>
</tr>
<tr>
<td>Food Stamps</td>
<td>k</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Senior Citizens</td>
<td>5</td>
<td>5</td>
<td>2</td>
</tr>
<tr>
<td>Public Housing (Low income)</td>
<td>6</td>
<td>h</td>
<td>5</td>
</tr>
<tr>
<td>Red Cross</td>
<td>7</td>
<td>3</td>
<td>k</td>
</tr>
<tr>
<td>Aid to Dependent Children</td>
<td>8</td>
<td>8**</td>
<td>10</td>
</tr>
<tr>
<td>WACAP</td>
<td>9**</td>
<td>13</td>
<td>15**</td>
</tr>
<tr>
<td>Head Start</td>
<td>10</td>
<td>11</td>
<td>6</td>
</tr>
<tr>
<td>Health Clinics (Low Income)</td>
<td>11</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Job Corp</td>
<td>12</td>
<td>13</td>
<td>12</td>
</tr>
<tr>
<td>VISTA Volunteers</td>
<td>13</td>
<td>15</td>
<td>2%</td>
</tr>
<tr>
<td>Day Care Center (Low income)</td>
<td>13%</td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Family Planning</td>
<td>15</td>
<td>10</td>
<td>8</td>
</tr>
</tbody>
</table>

Differences in rank orders are significant at the 05 level based upon Spearman Correlation Coefficient (r_s).

*Rank at which less than 50 percent of the respondents rated the program favorably.

In comparing the favorable responses of the three classes only three programs, the Windham Area Community Action Program, welfare, and the food stamp program were inversely related to social class. In all of the remaining programs there was a positive relationship between the proportion of favorable responses and social class. The proportion of unfavorable responses was inversely related to social class for the Red Cross, the Salvation Army, and the Social Security program. Unfavorable responses for the remaining programs tended to be directly related to social class. In some instances such as welfare, public housing, and the food stamp program, the proportion of unfavorable responses was higher for the middle class than for the upper class but both were significantly higher than the lower class.
The utilization of the "unsure" category creates some difficulty in the comparisons of class differences in favorable and unfavorable responses. The proportion of unsure responses varied inversely by social class for all fifteen programs. The range in the proportion of "unsure" responses for the lower class varied from a high of 63 percent for VISTA volunteers to a low of 9 percent for the welfare system. The corresponding range for the middle class was 62 percent for VISTA and 5 percent for the welfare system while the upper class ranged from a high of 37 percent for VISTA to a low 3 percent for Social Security.

Although it is impossible to know the reasoning behind the "unsure" responses, the extent of these ranges and the high proportion of unsure responses does suggest a tentative conclusion. The proportion of unsure responses may be a reflection of the amount of information that the respondents had on specific programs. There was no active VISTA volunteer program in the town at the time of the survey. Thus, the respondents may not have had sufficient information on VISTA to form an opinion on its effectiveness. This conclusion is further supported by the low proportion of unsure responses related to the welfare program which has had relatively widespread publicity. It can also be observed in Table One that the more traditional programs tended to receive a higher proportion of favorable ratings than newer programs with a primary objective of aiding the poor. If this conclusion is valid, then it might well be that knowledge and information about the services provided could greatly improve their effectiveness and contribute to a better understanding of their intentions. Keeping in mind the inverse relationship between social class and the proportion of "unsure" responses, VISTA, Head Start, The Job Corp, and health clinics, day care and family planning services for the poor could possibly benefit from a more widespread publicity program.

The respondents were also asked to give their opinion on several programs now being proposed by the federal government including the proposed guaranteed family income and national health programs. The proportion of respondents approving of both programs was inversely related to social class. Sixty-nine percent of the lower class approved of the proposed guaranteed family income compared to 56 percent of the middle class and 51 percent of the upper class. A higher proportion of the respondents approved of a national health program with 88 percent of the lower class approving such a program, and 77 percent and 70 percent of the middle and upper classes, respectively. There appears to be a general approval of greater efforts by the federal government in the areas of income and health services. It was noted above that approximately 66 percent of the lower class, 62 percent of the middle class, and 51 percent of the upper class felt that the federal government should do more to help alleviate poverty. There may be a trend among the respondents to turn to the federal government for assistance in meeting the problem of health and welfare. Future plans include a more detailed analysis of the
evaluation of antipoverty programs and other factors which might have a bearing on the effectiveness of efforts to alleviate poverty.

Conclusions

The findings from this study indicate that it is important to take into consideration differences in the perspectives of residents in the development and implementation of programs to alleviate poverty. Although it is not possible to generalize on the basis of the findings from this study the results do have implications. In general, low income residents have a less favorable impression of the community and are more likely to feel alienated from the ongoing social system. They tended to be less favorably impressed with community services and were more likely to favor greater support from the federal government. They also responded more favorably to newer antipoverty programs and relatively less favorably to older programs such as the welfare system. The significantly higher proportion of lower class respondents who apparently could not evaluate antipoverty programs suggests that there is an urgent need to publicize the programs more extensively. On the other hand, the fact that the higher income groups reacted less favorably to newer programs such as the Windham Area Community Action Program also suggests the need for more positive publicity in order to gain community wide support.
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INTRODUCTION*

There were six States which researched factors related to the effectiveness of specific programs designed for assisting families or individuals in poverty.

One of these projects involved data and collaboration of research personnel from the four States of Delaware, Maine, Maryland and Pennsylvania. This particular study focused on the leadership effectiveness of paraprofessional aides in Cooperative Extensions Nationwide Expanded Food and Nutrition Education Program in those four States. Other projects which focused on various aspects of the Nutrition Education Program were conducted in Pennsylvania and New Jersey. The New Jersey project and the four State project for which Maryland assumed major responsibility focused on the functioning of the paraprofessional aides. Pennsylvania in addition to collaborating in the four State study also conducted research on (a) whether adequacy of a poor family's dietary intake is improved through participation in the food distribution programs of food stamps, commodity distribution, and direct cash payments; (b) evaluation of congregated meals and related programs for the elderly; (c) two thesis projects of which one investigated the self-image changes of nutrition aides, and the other the organizational implications of adding the Expanded Youth Nutrition Program to the existing youth program; and (d) a study of the disadvantaging characteristics of household heads in low income families.

In addition to the study of nutrition aides New Jersey also evaluated a self-help housing program in that State.

New Hampshire after conducting a study to identify the areas where poverty was a major problem conducted an analysis of the problems of the aged poor. After these base studies were completed they conducted studies of the effects of (a) the Program to Families with Dependent Children and (b) the effects of manpower training programs.

New York had several contributing projects. The major thrust involved a county level program to deliver services to low income families. The research and reporting of results focused upon the effects of social systems, societal structure and cultural variables on quality of life and inequality effects for those in poverty.

A-This introduction and the Part II summary were the responsibility of Dr. J. W. Longest of Maryland.
Another New York project examined the feasibility of communicating with and giving information and education to low income families through the use of cassette recordings.

Vermont's contributing project focused upon low income farm families with some type of vocational disability. The Vermont Extension Service and Vocational Rehabilitation Division working in an integrated manner and through referrals and cooperation of various other agencies delivered health, education, and vocational rehabilitation services to the families. The core vehicle for work with the families was teams composed of a vocational rehabilitation counselor and farm family rehabilitation aides. About one-third of the families, in addition to other benefits, were placed in employment by this program.

The nature and results of these research projects are briefly summarized below by the authors. The summary of Part II inter-relates the findings of these and other research reports and their implications for future research.
Measuring the Leadership Effectiveness of Paraprofessionals*

by

James W. Longest

Introduction

This article reports on some of the results of a four-state study of the functioning of paraprofessional aides. As such it is one of several studies in the project which have studied various factors believed significant to the ability of such programs to serve as paths out of poverty for their clients.

In the last 10 to 15 years a major contributor to the increase in use of paraprofessionals has been Cooperative Extension Services’ Expanded Food and Nutrition Education Program. This program is nationwide in scope and as of December, 1973, was conducted in 1300 geographic program units, operating in all 50 states, the District of Columbia and Puerto Rico. At that time 7600 paraprofessionals were serving some 306,000 families. Numerous other paraprofessionals are employed in occupational positions such as aides to teachers in schools, as health aides and as aides to agricultural agents working with low income farmers.

Given an extensive increase in the use of paraprofessionals, it is relevant to ascertain and document the factors which are most critical to the effective functioning of paraprofessional aides.

The research reported here was conducted by studying some 270 para-

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--The author is Professor of Rural Sociology at the University of Maryland. The author wishes to acknowledge the contributions of research assistants Ms. J. McClurg, Mr. G. Owen, Ms. Linda Poffenberger, and Ms. C. Tennant in data collection, coding and processing. Ms. Tennant has had primary responsibility for computer processing of the data. Special acknowledgement is due to Cooperative Extension Supervisors and administrators of the Expanded Food and Nutrition Education Program in the states of Delaware, Maryland, Maine and Pa. for their cooperation and efforts without which the research could not have been conducted.
professional aides in the Nutrition Education program of the Cooperative Extension Service in the states of Delaware, Maine, Maryland and Pennsylvania. Coordinators in the other states were Dean William McDaniel, Delaware; Louis Ploch, Maine; and William Smith and Daryl Heasley, Pennsylvania. The research was sponsored by the Agricultural Experiment Stations of a number of Northeastern states. The aides' level of effectiveness was measured by a six-function leadership activities scale. The validity of the leadership scores was checked by relating those scores to the types and quantity of services delivered to the client families. Finally, the amount of training each aide received was related to the leadership scores to ascertain the degree to which leadership correlated with training received.

The purpose of the research was to ascertain whether a particular leadership theory can be utilized to measure the effectiveness of paraprofessionals in nutrition education. It was not the intent to evaluate the nutrition education programs in the four states; however, the results obtained indicate that the leadership function scales could be useful for evaluating such programs as well as for assessing the effectiveness of training given the aides.

The Nature of Paraprofessionals

Various reasons have been given for employing paraprofessionals. There are probably two paramount reasons:

(1) It is believed that indigenous persons recruited as paraprofessionals from the ranks of those who are to be clients will better understand the values and motivations of the clients and, thus, be able to achieve the rapport and trust needed for effective communication and appropriate response from the clients.

(2) There are not enough professional level workers to reach the many clients needing help, but properly trained and supervised paraprofessionals can greatly expand the outreach potential of each professional.

Thus, in addition to being meaningfully employed, the paraprofessional bridges the cultural gap between the professional and the client community and greatly expands the manpower available.1

From the inception of the EFNEP program, the professionals seemed aware of the benefits to be gained by the use of aides. Aides, recruited from the communities which the program serves, were trained to seek out and assist families in those communities.

Unlike paraprofessionals in many new-careers programs, the nutrition aides seemed to be given a significant amount of responsibility in working directly with their client families. They have also been given a great deal of encouragement for developing themselves personally and professionally. There appears to be considerable openness for receiving ideas and suggestions from the aides and support for them to utilize the ideas in working with their families.

**Leadership Theory Utilized**

This research utilized a leadership theory summarized briefly in an article by Bowers and Seashore, (1966). The four factors which they utilized were work facilitation, goal emphasis, support and interaction facilitation.

The development of this leadership functions theory was based on R. Likert's theory of leadership as reported in his *New Patterns of Management* and *The Human Organization*. In his theory he emphasizes the importance of supportive behavior, careful planning and analysis, high aspirations for task accomplishment, effective communications, and efficient interaction structures which lead to high levels of work accomplishment. This theory is also consistent with other well known theories on leadership effectiveness. Robert F. Bales in *Interaction Process Analysis*, outlined one of these theories. Bales' theory was operationalized for the purpose of analysis of interaction in small groups. Interactions in Bales' system were classified by categories related to either task accomplishment or group maintenance or cohesion. The leadership functions theory utilized here also focuses primarily on task accomplishment and group maintenance activities but is more adapted to research in formal organizations.

To differentiate between the functioning of the professional supervisors and the paraprofessionals, two other factors were separately identified for this research. These two were "planning and analysis" and "communications facilitation." From examination of questionnaire items used by Bowers and Seashore (1966) it was ascertained that they had included planning and analysis items as a part of work facilitation and communication facilitation items as a part of interaction facilitation. The differentiation of these two additional functions was consistent with the flexibility philosophy expressed by Bowers and Seashore (1966, p. 2^7) when they stated "These four dimensions are not considered indivisible, but capable of further subdivision according to the conceptual preferences of investigators."

Our conceptual preferences were that professional supervisors as well as the paraprofessional aides would find the planning and analysis function an important one in starting and conducting a new program and that it would be useful to have it distinguished from other work facilitation activities. Similarly, we felt that communication facilitation, although highly related to interaction facilitation, should be measured separately. Communication is a many-faceted function, while interaction facilitation is more restricted to causing interaction between two or more people (usually representatives of organizations) for some specific purpose.
This research, therefore, utilized six leadership functions for study of the effectiveness of the paraprofessional aides. These six functions, with a brief definition of the meaning of each are as follows:

(1) Planning and analysis: Involves defining needs, problems, and tasks that need attention; delineating the goals to be achieved and the methods and procedures for achieving them; identification of resources needed; and evaluation of goal achievement. The two major roles are those of planning and evaluation.

(2) Work facilitation: The major roles are those of initiation, execution, and supervision of tasks involved in goal attainment and work completion. Activities would include client identification, client education, and client services according to needs as identified in the planning and analysis function activities.

(3) Goal emphasis: Involves behavior and activities which lead to acceptance of and enthusiasm for the goals of the organization or to achievement of excellent performance. Activities include presentation, explanation and clarification of organization and program goals.

(k) Support: Involves behavior which enhances others' feelings of personal worth and importance. Activities or expressions which praise, encourage, increase self-esteem and confidence, and lead to the feeling that the individual is a valued member of the group or organization exemplify supportive behavior.

(5) Interaction facilitation: Involves activities and behavior which promote interaction, functional interdependence, communications and work accomplishment. The activities include making arrangements for interaction to take place as well as assuring that the quantity and quality of interaction is adequate to achieve the objectives established for the interaction. Ideally, the interaction should be mutually satisfying to the participants.

(6) Communications facilitation: Involves activities and behavior which lead to an exchange of information or messages which help in developing understanding between persons or groups for task accomplishment.

Methodology

Work on the NE-68 regional project began in July of 1969. Late that year, Maryland began designing its contributing project. A theoretical paper (Tennant and Longest, 1970) was written on the six basic leadership functions utilized in this study. In the early half of 1970, a questionnaire was developed to measure the leadership functions and their relationship to other variables.

During 1970, the questionnaire was pre-tested on a group of twenty nutrition aides in Washington, D. C. On the basis of the results obtained,
The items were revised. In addition to the leadership variables the questionnaire included variables measuring the kinds and extent of training, community services delivery, job evaluation, supervisor ratings, teaching methodology, self-esteem inventory, and selected demographic variables.

A similar questionnaire was developed and administered to supervising agents. The purpose of the supervisor's questionnaire was to ascertain what functions and activities they see as being the most important and to what extent their perceptions of the aide's roles and activities are reflected in or have an effect upon the aide's performance.

In the spring of 1971, a total of 72 aides and 13 supervisors in 11 counties in Maryland completed the questionnaire. Later that same year, questionnaires for 3 supervising agents and 22 aides were administered in Delaware. This represented responses from the total population of aides and their supervisors in Delaware and Maryland. Later data was collected from 75 aides and 17 supervisors in the state of Maine and from 99 aides and 30 supervisors in the state of Pennsylvania yielding a total combined sample of 270 aides and 63 supervisors for the research. This report discusses results for aides only; results for the supervisors will be reported in a future publication.

Questionnaires were completed by the aides in meetings where research assistants gave predetermined instructions and then supervised completion and gave assistance to aides as needed for clarification of procedures etc. All sessions in Maryland and Delaware were supervised by the Maryland research team. Sessions in Pennsylvania and Maine were supervised by personnel from those states after receiving training from the Maryland team. Where possible Maryland representatives traveled to other states to assure continuity of methodology.

Measuring Leadership

The leadership theory used provided the basis for a six function measure of leadership effectiveness of the aides. To ascertain the degree to which each aide performed on each function they were asked to indicate the number of their client families they served in specific ways or the frequency with which they performed specific tasks for them. A standardized score was calculated for each of the six functions. The sum of the six standardized scores provides a total leadership score.

The six leadership functions were briefly defined above in the section describing the theory utilized in the research. Illustrative items are listed below for each of the leadership functions to indicate both the nature of the instrument used and the operational definition of the leadership functions for paraprofessional aides.

(1) Planning & Analysis:

Two of the 10 items used for measuring the aides' planning and analysis activities were:
(a) Determined the family's problem areas and assigned priorities to them with the help of the homemaker.

(b) Helped in planning which materials would be given homemakers in the program.

(2) **Work Facilitation:**

Three of the 13 items used for measuring the aides' work facilitation activities were:

(a) Homemaker prepared a new food under your guidance.

(b) Homemaker was in a group you took shopping to demonstrate good buying practices.

(c) Helped homemaker to obtain food if the family qualifies for one of the programs.

(3) **Goal Emphasis:**

Two of the 9 items used for measuring aides' goal emphasis activities were:

(a) Influenced homemaker to work for good health practices for herself and her family.

(b) Worked to inform community citizens and other agencies to bring understanding of and agreement with the program objectives.

(k) **Support:**

Two of the 9 items used to measure the aides' support activities were:

(a) Presented a certificate or otherwise gave special praise to a homemaker who had accomplished what she had planned.

(b) Listened to homemakers' problems.

(5) **Interaction Facilitation:**

Two of the 11 items used to measure aides' interaction facilitation activities were as follows:

(a) Assisted family in getting services from other agencies such as welfare, health, and employment.

(b) Sought advice and assistance of community leaders.
Communications Facilitation:

Three of the 9 items used for measuring aides' communications facilitation activities were:

(a) Told a leader in the area about a community problem which affects your families.

(b) Stimulated homemaker to tell other homemakers what she has learned in the program.

(c) Explained attitudes, beliefs and practices of homemakers to Extension.

Measuring Training

The training received by the aides was categorized into the training areas of nutrition, working with people, teaching methods, organization of materials, home management, group organization and leadership, and use of community resources. The training was measured by asking each aide to indicate the amount of training received in each area. Their responses were then coded from "0" to "4" indicating that they had received from none to a lot of training for that area. Scores for each of the areas were also summed to yield a total training score for each aide.

Measuring Services Delivery

Services delivery was measured by asking the aides to indicate the number or percentage of families to which she delivered 31 specific services that were categorized in the general service areas of nutrition, medical, home management, social and educational services. A total services delivery score was obtained by summing the scores for each of the five service areas. These services were viewed as interdependent with the major objective of nutrition education. That is, for example, the ability to utilize nutrition education is dependent on having an adequate food supply and therefore aides frequently needed to assist low income families to receive food through one of the food programs such as food stamps or donated foods. Similarly, health problems often needed attention if good nutritional practices were to be learned and effective in many of the families. Table 1 lists the 31 specific services asked about in the five service categories and indicates the percentage of aides who indicated delivery of that type of service to at least some of their client households.
<table>
<thead>
<tr>
<th>SERVICE DELIVERY AREAS</th>
<th>Md. (N=72)</th>
<th>Pa. (N=99)</th>
<th>De. (N=24)</th>
<th>Me. (N=75)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NUTRITION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Donated Foods</td>
<td>30.6</td>
<td>38.4</td>
<td>66.7</td>
<td>89.3</td>
</tr>
<tr>
<td>(2) Food Stamps</td>
<td>37.5</td>
<td>79.7</td>
<td>0.0</td>
<td>13.4</td>
</tr>
<tr>
<td>(3) Emergency Food</td>
<td>43.1</td>
<td>37.4</td>
<td>54.2</td>
<td>70.7</td>
</tr>
<tr>
<td>(4) Free School Lunch</td>
<td>25.0</td>
<td>47.5</td>
<td>37.5</td>
<td>62.7</td>
</tr>
<tr>
<td>(5) Supplemental Food</td>
<td>4.2</td>
<td>9.1</td>
<td>20.8</td>
<td>32.0</td>
</tr>
<tr>
<td><strong>MEDICAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Family Planning</td>
<td>52.8</td>
<td>69.7</td>
<td>67.7</td>
<td>76.0</td>
</tr>
<tr>
<td>(2) Physical Rehabilitation</td>
<td>11.1</td>
<td>21.2</td>
<td>12.5</td>
<td>37.5</td>
</tr>
<tr>
<td>(3) Public Health Clinics</td>
<td>22.2</td>
<td>52.5</td>
<td>58.3</td>
<td>56.0</td>
</tr>
<tr>
<td>(4) Mobile Health Units</td>
<td>5.6</td>
<td>16.2</td>
<td>12.5</td>
<td>1.3</td>
</tr>
<tr>
<td>(5) Dental Clinics</td>
<td>13.9</td>
<td>25.3</td>
<td>25.0</td>
<td>26.6</td>
</tr>
<tr>
<td>(6) Drug Treatment Centers</td>
<td>2.8</td>
<td>7.1</td>
<td>12.5</td>
<td>10.6</td>
</tr>
<tr>
<td>(7) Mental Health Facilities</td>
<td>5.6</td>
<td>31.3</td>
<td>8.3</td>
<td>53.3</td>
</tr>
<tr>
<td>(8) Medicaid</td>
<td>13.9</td>
<td>30.3</td>
<td>37.5</td>
<td>42.7</td>
</tr>
<tr>
<td><strong>HOME MANAGEMENT</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Help Family get along better</td>
<td>47.2</td>
<td>70.7</td>
<td>75.0</td>
<td>72.0</td>
</tr>
<tr>
<td>(2) Help with budgeting and planning time and money</td>
<td>65.3</td>
<td>95.0</td>
<td>91.7</td>
<td>76.0</td>
</tr>
<tr>
<td>(3) Consumer Education</td>
<td>63.9</td>
<td>73.7</td>
<td>70.8</td>
<td>58.6</td>
</tr>
<tr>
<td>(4) Better Housing</td>
<td>47.2</td>
<td>66.7</td>
<td>58.3</td>
<td>58.7</td>
</tr>
<tr>
<td>(5) Decorating &amp; Furnishing Home</td>
<td>56.9</td>
<td>58.6</td>
<td>62.5</td>
<td>58.7</td>
</tr>
<tr>
<td>(6) Donated Clothing</td>
<td>76.4</td>
<td>62.7</td>
<td>66.6</td>
<td>89.3</td>
</tr>
<tr>
<td>(7) Sewing Aid</td>
<td>0.0</td>
<td>57.6</td>
<td>45.8</td>
<td>57.3</td>
</tr>
<tr>
<td><strong>SOCIAL SERVICES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Social Security Survivor</td>
<td>11.1</td>
<td>25.3</td>
<td>25.0</td>
<td>58.6</td>
</tr>
<tr>
<td>(2) Social Security Disability</td>
<td>8.3</td>
<td>30.3</td>
<td>29.2</td>
<td>60.0</td>
</tr>
<tr>
<td>(3) Old Age or Medicare</td>
<td>9.7</td>
<td>30.3</td>
<td>33.3</td>
<td>80.0</td>
</tr>
<tr>
<td>(4) Vocational Rehabilitation</td>
<td>15.3</td>
<td>19.2</td>
<td>12.5</td>
<td>54.6</td>
</tr>
<tr>
<td>(5) Job Finding</td>
<td>36.1</td>
<td>46.5</td>
<td>50.0</td>
<td>77.3</td>
</tr>
<tr>
<td>(6) Legal Assistance</td>
<td>18.1</td>
<td>38.4</td>
<td>33.3</td>
<td>70.6</td>
</tr>
<tr>
<td>(7) Foster Home or Temporary Care Services</td>
<td>5.6</td>
<td>13.1</td>
<td>16.7</td>
<td>29.3</td>
</tr>
<tr>
<td><strong>EDUCATION</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(1) Preschool Programs</td>
<td>44.4</td>
<td>44.5</td>
<td>50.0</td>
<td>52.0</td>
</tr>
<tr>
<td>(2) Help with School Problems</td>
<td>36.1</td>
<td>39.4</td>
<td>41.7</td>
<td>56.0</td>
</tr>
<tr>
<td>(3) Adult Education</td>
<td>34.7</td>
<td>27.3</td>
<td>25.0</td>
<td>45.2</td>
</tr>
<tr>
<td>(4) Recreational Programs</td>
<td>23.6</td>
<td>41.4</td>
<td>50.0</td>
<td>49.4</td>
</tr>
</tbody>
</table>
Other Variables:

Aides were asked for their age, education, marital status, family income, occupational history prior to becoming an aide, and asked to complete a self-esteem scale. Occupational history scores were calculated based on the Duncan Socioeconomic Index Scale, (Duncan, 1969). The self-esteem scale was the same as Pennsylvania State University had used in an earlier research project in Pennsylvania, (Nolan, 197').

Relationship of Training and Leadership Functioning

One of the questions the research sought to answer was whether or not specific training received by the aides influenced particular leadership functions.

The types of training given the aides were categorized into seven training areas which were: (1) nutrition education, (2) working with people, (3) teaching methods, (4) organization of time and materials, (5) home management, (6) group and organizational leadership, and (7) use of community resources.

Training as reported by the 270 aides for each training area is summarized in Table 2 and each area is ranked by amounts of training reported. Nutrition education in which 91 percent of the aides reported receiving a high amount of training was rank 1 while group organization and leadership in which only 7 percent of the aides reported a high amount of training was rank 7, (Table 2). The small percentage of no training responses apparently results from a few newly hired aides who had not been given training in all areas. Amount of training given the aides was examined as a possible factor in the relationship of training and leadership functioning.

Association of Total Training and Total Leadership Scores

The aides' scores for total of training in all areas were significantly associated with their total leadership scores, (Table 3).
Table 2  Rank by Number and Percentage of Aides Reported Receiving None, Low and High Amounts of Seven Types of Training

<table>
<thead>
<tr>
<th>Type of data</th>
<th>Nutrition Education</th>
<th>Working with People</th>
<th>Teaching Methods</th>
<th>Organization of Time &amp; Materials</th>
<th>Home Management</th>
<th>Group Organization and Leadership</th>
<th>Use of Community Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No. of aides</td>
<td>% of aides</td>
<td>Rank in Amount of Training</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>Low</td>
<td>High</td>
<td>None</td>
<td>Low</td>
<td>High</td>
<td>None</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>21</td>
<td>246</td>
<td>1</td>
<td>54</td>
<td>215</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>1%</td>
<td>8%</td>
<td>91%</td>
<td>0%</td>
<td>20%</td>
<td>80%</td>
<td>5%</td>
</tr>
</tbody>
</table>

| Rank in Amount of Training | 1 | 2 | 6 | 3 | 5 | 7 | 4 |
Table 3  Relationship of Total Training Received by Aides with Total Leadership Scores

<table>
<thead>
<tr>
<th>Total Leadership</th>
<th>Training Received</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>High</td>
<td>Total</td>
</tr>
<tr>
<td>Low</td>
<td>65</td>
<td>25</td>
<td>90</td>
</tr>
<tr>
<td>Med.</td>
<td>39</td>
<td>50</td>
<td>89</td>
</tr>
<tr>
<td>High</td>
<td>3^</td>
<td>57</td>
<td>91</td>
</tr>
<tr>
<td>Total</td>
<td>138</td>
<td>132</td>
<td>270</td>
</tr>
</tbody>
</table>

x = 24.38 with 2 degrees of freedom
significant at the .001 level

This was an indication that aides who reported higher levels of training for their jobs were performing at a higher level than those with less training.

Association of Training Areas with Total Leadership Scores

Only two of the aides training variables, those for nutrition education and working with people, were not significantly related to total leadership scores, (Table k). This lack of association is largely explained by the fact that 91 percent and 80 percent of the aides reported high amounts of training respectively on these two areas of training.

The remaining training areas of teaching methods, organization of time and materials, home management, group organization and leadership, and use of community resources are significantly related to total leadership scores, (Table k).

The relationship between training in group organization and leadership and total leadership scores was the strongest and is shown in detail in Table 5.
Table 4  The Relationship of Training and Leadership Scores of Aides as Indicated by Chi-Square
Values (2 df) and Their Levels of Significance

<table>
<thead>
<tr>
<th>Leadership Functions</th>
<th>Training Areas</th>
<th>Nutrition</th>
<th>Working with People</th>
<th>Teaching Methods</th>
<th>Org. of Time &amp; Materials</th>
<th>Home Management</th>
<th>Group Org. &amp; Leadership</th>
<th>Use of Community Resources</th>
<th>Total Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Planning &amp; Analysis</td>
<td></td>
<td>5.72</td>
<td>5.11</td>
<td>22.39***</td>
<td>22.82***</td>
<td>13.23**</td>
<td>30.94***</td>
<td>16.29***</td>
<td>22.13***</td>
</tr>
<tr>
<td>2. Work Facilitation</td>
<td></td>
<td>5.13</td>
<td>5.18</td>
<td>20.67***</td>
<td>12.49**</td>
<td>18.24***</td>
<td>22.13***</td>
<td>17.58***</td>
<td>18.85***</td>
</tr>
<tr>
<td>4. Support Function</td>
<td></td>
<td>3.35</td>
<td>6.86*</td>
<td>19.02***</td>
<td>13.43**</td>
<td>7.49*</td>
<td>17.47***</td>
<td>17.18***</td>
<td>18.65***</td>
</tr>
<tr>
<td>5. Interaction Facilitation</td>
<td></td>
<td>.30</td>
<td>2.68</td>
<td>10.27**</td>
<td>2.08</td>
<td>9.88**</td>
<td>10.62**</td>
<td>10.99**</td>
<td>4.65</td>
</tr>
<tr>
<td>6. Communication Facilitation</td>
<td></td>
<td>5.56</td>
<td>9.17</td>
<td>17.77***</td>
<td>13.64**</td>
<td>8.47*</td>
<td>28.20***</td>
<td>34.02***</td>
<td>21.13***</td>
</tr>
<tr>
<td>Total Leadership</td>
<td></td>
<td>3.49</td>
<td>5.35</td>
<td>25.61***</td>
<td>19.87***</td>
<td>17.29***</td>
<td>30.13***</td>
<td>10.95**</td>
<td>24.83***</td>
</tr>
</tbody>
</table>
Table 5  Relationship of Aides Training in Group Organization and Leadership and Total Leadership Scores

<table>
<thead>
<tr>
<th>Total Leadership</th>
<th>Training in Group Organization &amp; Leadership</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Low</td>
<td>68</td>
</tr>
<tr>
<td>Medium</td>
<td>44</td>
</tr>
<tr>
<td>High</td>
<td>33</td>
</tr>
<tr>
<td>Total</td>
<td>145</td>
</tr>
</tbody>
</table>

\[ \chi^2 = 30.13 \text{ with } 2 \text{ degrees of freedom} \]

significant (>) 0.001

Associations of Training Areas with Each Leadership Function Score

The differential effects of training on each of the six leadership functions were somewhat more varied than their effects on total leadership scores reported above.

The functions of planning and analysis and work facilitation were both highly associated with the amounts of training given in each area with the exception of training in nutrition education and working with people. The effects of training on these two functions were strikingly similar which would seem to affirm that they are highly interdependent as was hypothesized.

Goal emphasis was less associated with most of the training areas than were planning and analysis and work facilitation except for its association with training for group organization and leadership, (Table 4). This stronger association of goal emphasis with training for group organization and leadership is also consistent with what theory predicts it should be.

The association of support and communications leadership functions with types of training were the most consistently similar of any of the pairs of leadership functions, (Table 4). Neither function was significantly associated with nutrition education. On the other hand, they were significantly associated with training for working with people. This is also consistent with what theory would predict in that training for working with people could be expected to teach being supportive of people and maintaining effective communication. Two of the highest associations of all those shown in the table were between communications facilitation leadership and training in group organization and leadership and the use of community re-
sources, (Table k). It would seem reasonable that training in group organization and leadership and effective use of community resources would stress good communications techniques.

The leadership function of interaction facilitation was the only function not significantly associated with the scores for total training, (Table k). It was essentially not associated at all with training for nutrition education, working with people, or organization of time and materials. It was, however, significantly associated with all other types of training—teaching methods, home management, group organization and leadership, and use of community resources, (Table 4). Although training for nutrition education and organization of time and materials would not be expected to stress interaction facilitation, it might have been expected that training for working with people would have done so. Apparently, the training for working with people stressed the communications and support functions and left interaction facilitation training to more task-oriented training, such as that for group organization and leadership and use of community resources.

**Relationship of Leadership and Services Delivery**

The major focus of the program was on nutrition education, but a number of other family problems were interdependent with good nutrition. For example, assistance with a health problem or with obtaining food stamps and/or employment are interrelated with the ability to effectively utilize nutrition education.

Thirty-one specific services were selected to represent these interdependent types of problems and were grouped into the general categories of: (1) nutrition, (2) medical, (3) home management, (k) social, and (5) educational service. These services were either supplied directly by the aides and Extension or were delivered to the client by referral to the appropriate supplying agencies. Scores for each service area as well as scores for total services delivery were related to the leadership scores of aides.

**Amounts and Rank of Five Types of Services Delivered**

The highest ranking service was number of aides reporting either a medium or high number of families given assistance on home management, (Table 6). This is not surprising since providing adequate nutrition requires good management as well as knowledge of good nutrition.

Nutrition services ranked 2 for number of families assisted in obtaining food through one of the food assistance programs or through school lunches for children, (Table 6). This is also not surprising since all client families were low income and a sufficient supply of food is essential for good nutrition.

Medical services and social services ranked 3 and k respectively for numbers of families helped, (Table 6). It would not be expected that all families would need these services, but about 50 percent of the aides reported a medium to high number of their families were given help in these
service areas. Because of prior poor health habits and employment problems low income families are known to be more in need of medical and social services so the percentage receiving help appears reasonable.

The fifth and lowest ranked service area was for education.

The differential emphasis on services were logically consistent with the major focus and objectives of the nutrition education program. They were also useful for interpretation of the relationships between the various leadership function scores and services delivery scores.

Association of Total Leadership and Total Services Delivery Scores

Total leadership scores were highly associated with total services delivery scores, (Table 7). The associations show that aides receiving the higher leadership scores were also the ones with the higher scores for delivery of the five types of services delivered to the client families.
Table 6 Rank of Each Type Service by Amounts Delivered by the Aides

<table>
<thead>
<tr>
<th>Type of Data</th>
<th>Nutrition Services</th>
<th>Medical Services</th>
<th>Home Management Services</th>
<th>Social Services</th>
<th>Educational Services</th>
<th>Total of all Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>None</td>
<td>Low</td>
<td>Medium</td>
<td>High</td>
<td>None</td>
<td>Low</td>
</tr>
<tr>
<td>No. of Aides Reporting</td>
<td>52</td>
<td>65</td>
<td>81</td>
<td>72</td>
<td>55</td>
<td>76</td>
</tr>
<tr>
<td>% of Aides Reporting</td>
<td>19</td>
<td>24</td>
<td>30</td>
<td>27</td>
<td>20</td>
<td>28</td>
</tr>
<tr>
<td>Rank on Services Delivered</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>
Table 7  Relationship of Aides Total Leadership Scores with Total Service-Delivery Scores

<table>
<thead>
<tr>
<th>Total Leadership</th>
<th>Service Delivery</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
<td>Medium</td>
</tr>
<tr>
<td>Low</td>
<td>$k_5$</td>
<td>32</td>
</tr>
<tr>
<td>Medium</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>High</td>
<td>17</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>88</td>
<td>93</td>
</tr>
</tbody>
</table>

significant at .001 level

Association of the Six Leadership Functions with the Delivery of Five Types of Services

Planning and analysis leadership was highly associated with the delivery of all five types of services as well as with the total services delivery scores, (Table 8). The lowest association was with nutrition services.

Work facilitation was significantly related to the delivery of medical, home management, and educational services as well as total services; however, work facilitation's association with nutrition and social service delivery was low, (Table 8).

Goal emphasis leadership was highly associated with delivery of all services except nutrition services, (Table 8).

The support and communications facilitation leadership functions are significantly associated with all types of services delivery, (Table 8).

Of all the leadership functions interaction facilitation had the highest association with total services delivery scores and also with all of the five types of services delivery, (Table 8).

Thus the six leadership functions are all highly related to total services delivery. Except for three of the 30 relationships the six leadership functions are also highly related to delivery of all five types of services delivery.
Table 8  Relationship of Aides Leadership to Selected Services Delivered by Chi Square Values (4 d f) and Levels of Significance

<table>
<thead>
<tr>
<th>Leadership Functions</th>
<th>Types of Services Delivered</th>
<th>Nutritional Services</th>
<th>Medical Services</th>
<th>Home Management Services</th>
<th>Social Services</th>
<th>Educational Services</th>
<th>Total Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Planning &amp; Analysis</td>
<td>13.16**</td>
<td>13.33**</td>
<td>22.64***</td>
<td>12.88**</td>
<td>30.82***</td>
<td>43.23***</td>
<td></td>
</tr>
<tr>
<td>2. Work Facilitation</td>
<td>8.19 (s @ .10)</td>
<td>16.20**</td>
<td>30.05***</td>
<td>5.21 (s @ .50)</td>
<td>29.11***</td>
<td>39.72***</td>
<td></td>
</tr>
<tr>
<td>3. Goal Emphasis</td>
<td>8.98 (s @ .10)</td>
<td>19.17***</td>
<td>34.08***</td>
<td>10.16*</td>
<td>12.92***</td>
<td>43.26***</td>
<td></td>
</tr>
<tr>
<td>4. Support</td>
<td>13.45**</td>
<td>18.46**</td>
<td>28.70***</td>
<td>6.86 (s @ .25)</td>
<td>18.76***</td>
<td>37.99***</td>
<td></td>
</tr>
<tr>
<td>5. Interaction Facilitation</td>
<td>30.97***</td>
<td>35.90***</td>
<td>24.61***</td>
<td>39.39***</td>
<td>35.28***</td>
<td>58.63***</td>
<td></td>
</tr>
<tr>
<td>6. Communication Facilitation</td>
<td>14.58**</td>
<td>15.03**</td>
<td>13.97**</td>
<td>23.85***</td>
<td>26.85***</td>
<td>36.55***</td>
<td></td>
</tr>
<tr>
<td>Total Leadership</td>
<td>14.65**</td>
<td>24.66***</td>
<td>27.22***</td>
<td>14.76**</td>
<td>36.22***</td>
<td>49.98***</td>
<td></td>
</tr>
</tbody>
</table>

* Significant at .05 level  
** Significant at .01 or .02 level  
*** Significant at .001 level
Summary and Conclusions

Earlier research using the functional leadership theory was usually directed at the measurement of leadership effectiveness among professional level personnel. In this research the theory is used to construct leadership effectiveness scales for paraprofessional level personnel. The results indicate that paraprofessional effectiveness can be measured by scales operationalizing this theory.

The relationship of the leadership function scores, the training given and the quantity of services delivered was the focus of the analysis reported here.

Total training was significantly related to total leadership scores and to all individual leadership function scores except for interaction facilitation which was significantly associated with 4 of the 7 types of training.

The results indicated that training in working with people was focused on supportive behavior and effective communication rather than on effective interaction techniques or task accomplishment activities.

Training in the areas of teaching methods, group organization and leadership and use of community resources were highly related to the leadership functions of planning and analysis, work facilitation, support and communications facilitation. Thus, these areas of training appeared to have focused strongly on task accomplishment activities but also gave strong attention to activities that focused on supportive behavior.

The training for organization of time and materials was most highly related to planning and analysis, and home management was most highly related to work facilitation. Given the nature of the training areas and leadership functions these results seem consistent with expectations.

These relationships between training and leadership indicate that training had been given for both task accomplishment and group maintenance purposes. The results also indicated that types of training varied in the degree to which they focused on task versus supportive behavior or group maintenance activities. The differences in apparent emphasis and degree of association with individual leadership functions are consistent with what theory would predict it should be.

There is strong evidence that training which emphasized supportive behavior also emphasized effective communications since throughout the analysis when support scores are highly related to a type of training the communications facilitation scores are also highly related to that type of training.

The results confirm that it was analytically useful to have communications facilitation a separate function from interaction facilitation. As reported, support and communications facilitation typically are similarly related to other variables. Interaction facilitation's relationships to
other variables often form a different pattern. Similarly, having separated planning and analysis functions from those of work facilitation reveals that their relationship to types of training and to types of services delivered are often different.

The association between the total leadership scores and the total services delivery scores was high. Aides with the higher total leadership scores were delivering services to a higher proportion of their clients. This was an indication that the leadership scores were reliable for predicting aide effectiveness.

The possible uses of the leadership function scales are as follows:

(1) The leadership scores should be useful for evaluating the effectiveness of training programs. The leadership activities scores if given early and at periodic intervals after more training is given should reflect the increase in effectiveness of aides because of the additional training. Since these activity scales reflect behavior related to achieving program objectives, they can function as a part of input evaluation;

(2) Since the leadership scores are found to be highly related to services delivered, they could, therefore, be used to predict aide effectiveness as a part of both input and process evaluation; and

(3) The scores could be used to help evaluate program effectiveness when combined with measures of client change as product evaluation.

References


New Jersey's contribution under Paths Out of Poverty - NE-68 involved exploring two separate program areas that were considered of primary importance to the state -- housing and nutrition. In the case of housing, one facet of the problem of providing adequate housing for the rural poor was examined under the concept of "sweat equity." That is, could the idea of self-help housing provide an economical means of building individual houses for New Jersey's rural poor?

In the area of nutrition, the state's Nutritional Education Program was examined to explore possible relationships between "success" of aides and certain aspects of their backgrounds.

A. SELF-HELP HOUSING

Self-help housing is the idea of "sweat equity" to obtain housing; that is, individuals or groups of individuals building all or most of their houses. The program can be described as "do-it-yourself" in which hard work and personal pride can help provide quality housing to persons whose incomes would not normally permit them to own houses.

In New Jersey, self-help housing was initiated to provide additional rural low and middle income housing. The projects have involved individuals (or families) that participate in any or all phases of the construction or renovation of their own dwellings (the Organization for Social and Technical Innovation, Inc. (OSTI), 1969). Although actual self-help programs differ from project to project, all programs combine home ownership with family participation in the building process. Five variations of the technique have been applied in the United States; however, only organized mutual self-help has been used in New Jersey. In the organized, mutual self-help method, housing is sponsored or supervised, or supported, or all three, by parties other than the participating group. The participant does not initiate any effort beyond the decision to join the program or project group (OSTI, 1969).

Although many projects have been organized, the actual cost of self-help housing in the United States and in New Jersey is
undetermined indications are that the technique is an economical means of building individual housing for some rural poor; however, no economic justification for use of the self-help technique has yet been completed. Margolis states: "No one has done a satisfactory cost-accounting analysis of a self-help program and no one knows for certain how well the technique, as it is currently being practiced, would stand up to an economist's scrutiny (Margolis, 1967).

In short, this study directs itself to two major objectives: (1) to determine if self-help housing, as compared to similar contract-built housing, is a cost-savings means of obtaining housing for New Jersey's rural poor, and (2) to determine the imputed return per man-hour of labor for a self-help builder constructing a representative self-help house.

Procedure

A case study approach was used to examine each of the 2k homes built in New Jersey under the self-help program. Each home was evaluated as an individual observation unit. Emphasis was placed upon obtaining construction cost data; specifically, the total construction cost for each house in addition to detailed allocations for each phase of the construction process. Additional data concerning the dimensions of the house, the dates constructed and the length of construction time for each house were collected. Since the houses were completed over a six-year period, all construction costs were expressed in 1971 prices using the Wholesale Price Index as an inflator.

In order to determine if the self-help housing technique was in fact a cost-saving means of obtaining housing, an average representative self-help house was contrasted to the cost of a contract-built house. Data on the construction cost of a contract-built house were obtained through a personal survey of private contractors in the south and central regions of New Jersey.

The final task of the analysis was to determine the imputed return per man-hour of labor for a self-help builder constructing a representative self-help house. It was assumed that the difference between the market price and the cost of building materials (adjusted to a price level representative of the market price) would be the imputed return to labor for a self-help builder. The imputed return per man-hour of labor was determined by dividing the imputed return to labor by the total number of man-hours of labor required to construct the representative self-help house.

Results

An examination of the cost data from individual self-help houses was made although detailed cost descriptions by each construction cost category were not available. Costs by construction categories were usually available for each project. Only 21
self-help houses rather than the 2k that were constructed were included in the survey because architectural plans showed that three houses were considerably different from the others. The analysis of the adjusted construction cost figures revealed large variation both within individual housing projects and between the five projects under the various construction cost categories.

In brief, the major variables that affect the construction costs of self-help housing in New Jersey were identified and measured by the data in the Farmer's Home Administration records. Although construction categories were averaged by project as well as for the regions and the state, they were not very representative because job categories were not always listed the same way and because some of the houses used more contracted labor than others. Adjusted construction cost data also showed that an average self-help house costs approximately $2,900 more in Central Jersey than one in South Jersey, mainly as a result of a larger amount of subcontracting (hired labor).

**Housing Costs**

Since the construction of the 21 self-help houses was based upon almost identical architectural floor plans, the representative self-help house was based upon this same plan. It averaged 999 square feet of living area and cost $10,171 to build. With the architectural plans and the cost as constructed by the self-help builder, the next step was to determine the cost of a contract-built representative house.

A summary of the data obtained in the survey of private contractors conducted during August, 1971 showed that a representative contract built house in New Jersey would cost $16,567. The market price, which did not include cost of land and real estate fees, is the cost of the representative house to a prospective self-help builder if he elected not to construct the house himself.

In short, defining the imputed return to labor as the difference between the market price of the house and the cost of building materials and assuming that material costs are approximately the same for the two builders, then, a self-help builder as compared to a contractor builder can save on the average $6,396 ($16,567 minus $10,171) in obtaining the standard self-help house in New Jersey.

**Imputed Return to Labor**

Regional differences exist among the estimated market prices for representative self-help houses. The mean market prices in South and Central Jersey are $15,599 and $17,244, respectively. A t-test was performed to test if the regional market means were statistically significant; i.e., whether they come from two
separate populations. At a 5-percent level of significance the results showed that the means were from separate populations.

In a similar manner, a t-test at the .05 level showed that there was no significant difference in the man-hours of labor required to construct the hypothesized house by contractors in the different regions.

Since the regional differences in market price were significant, it was decided to conduct the analysis both by regions and for the state. For labor hours, the mean figure of 646 man-hours was used for contract-built houses.

Because of inexperience in construction techniques, the self-help builder, as compared to the private contractor, would be expected to employ considerably more man-hours of labor to complete construction of a similar quality house. Accordingly, the imputed return per man-hour of labor for a self-help builder would be considerably less than that of a contractor; the exact amount dependent upon the number of hours required by the self-help builder to construct the representative self-help house.

Because data were not available to indicate the approximate number of hours required by the self-help builder to complete the construction of his house, the contractor's average survey figure of 646 man-hours times an adjustment constant was used to calculate the self-help builder's hours.

The imputed returns per man-hour of labor for the self-help builder were computed to represent a constant decrease in production; i.e., an increase needed in labor hours for completion, with 646 man-hours of labor equated to the maximum production of 100 percent. For example, if the self-help builder required twice the number of man-hours of labor to construct the house, 1,292 hours (646 x 2) as compared to 646 hours for the private contractor, his completion time would be increased by 100 percent, while his imputed return per man-hour of labor would be decreased by 50 percent.

Finally, it was assumed that a participant could devote at least 20 man-hours of labor a week to the construction project. This average work load could be maintained 52 weeks in a year, plus 80 hours of full-time construction work during a 2-week vacation period, in addition to working his full-time occupation -- 8 hours a day, 5 days a week. On a daily, hourly basis, this would be a minimum of 8 hours a day on weekends and a total of 4 hours spread over the evenings of the 5-week days -- in total, 1,120 man-hours of labor per year.

In summary, using the average completion time of 17.9 months or 1.49 years for the self-help houses built in New Jersey and an assumed 1,120 man-hours of labor a year; this would mean 1,668.8 man-hours of labor were used to build the average self-help house in New Jersey (1.49 x 1,120 = 1,668.8).
The imputed return to labor by regions under the assumption that it will take a self-help builder 2.58 times as long to build a house as a contractor-builder \((1,668.9 \div 646 = 2.58)\) are summarized in Table I. The average value product curve for labor under various completion times for the state is illustrated in Graph 1. For example, if it took a worker 3.5 times as long to complete a house as a contractor-builder, completion time would be 2,261 man-hours and the rate of return would be approximately $3.95 per hour.

<table>
<thead>
<tr>
<th>Area</th>
<th>Building Imputed return to labor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market price</td>
</tr>
<tr>
<td>Southern region</td>
<td>Percent</td>
</tr>
<tr>
<td>Dollar value</td>
<td>15,599</td>
</tr>
<tr>
<td>Central region</td>
<td>Percent</td>
</tr>
<tr>
<td>Dollar value</td>
<td>17,244</td>
</tr>
<tr>
<td>New Jersey</td>
<td>Percent</td>
</tr>
<tr>
<td>Dollar value</td>
<td>16,567</td>
</tr>
</tbody>
</table>

a/ Marketing prices and percentages for building materials, labor, profit and overhead taken from survey of contractors for a similar representative house.

b/ Profit and overhead were defined as entrepreneurship.

c/ Calculated using 1668.8 hours per house divided into total imputed return to labor (market price - materials).

Implications

Almost 39 percent of the cost of a contract-built representative self-help house can be saved through participation in a self-help project. Furthermore, if the self-help builder earns a wage in excess of $5.36 per hour he should have his house built for him; on the other hand, if his wage was less than $5.36 per hour, it would pay for him to build his own house. Consequently, as long as individuals have the desire, health, and means to provide housing for themselves through participation in a self-help project, they should be encouraged to do so. The self-help housing technique, hopefully, can act as one means to bridge the gap between
GRAPH 1.-AVERAGE VALUE PRODUCT CURVE FOR THE CONSTRUCTION OF A REPRESENTATIVE SELF-HELP HOUSE IN NEW JERSEY (SOUTH AND CENTRAL REGIONS COMBINED), 1971

Imputed Return per Man-Hour of Labor Measured in Dollars

- 13.85 Contract House
- 6.92
- 5.36
- 3.95

Completion Time Measured in Man-Hours of Labor

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14
0 400 1200 2000 2800 3600 4400
poor, substandard housing and adequate rural housing

Although one alternative for providing housing in New Jersey is the self-help housing technique, it is by no means a panacea for the housing needs of the rural poor, let along the poor living in urban areas. In addition to a minimum skill needed, persistence, sacrifice, and the ability to work with others are all necessary qualities. Participant families must also have a good credit rating and the ability to repay the loan.

Finally, no total social balance sheet has been attempted, i.e., where both benefits and costs to society from self-help housing are calculated. Even as far as private costs are concerned, only those in terms of a wage or opportunity cost have been examined. No attempt has been made to evaluate other private costs or benefits.

B. GUIDELINES FOR THE SELECTION OF NUTRITION AIDES

On the assumption that poverty leads to poor diets, the Cooperative Extension Service funded the Expanded Food and Nutrition Education Program (EFNEP) in 1968 with the main objective of helping educate the poor to improve their diets. The major means to reach the poor was through nutrition aides who were nonprofessional leaders working directly with the poor. It was felt that aides, because of their backgrounds, could relate in their direct contacts with the poor.

During a review of the literature it was found that there is a significant difference in effectiveness among nutrition aides (Spindler, 1967, 1969; Wang, et.al. 1970). The word "effectiveness" is defined as the degree of success with which the nutrition aides perform their duties. Though many home economists feel that there is a relationship between the success of aides and certain aspects of the aides' background and training, they are not in general agreement upon just what these relationships are.

As a result, the recruitment criteria used to hire aides vary widely and appear to be more subjective than objective. If a better understanding of the background and training relationships were available, it could be used to aid in the selection and subsequent training of aides, hopefully with the result that more successful aides could be developed within the program. The development of more successful aides, in turn, should help the program to meet its goals of increasing nutritional standards for the poor and improving the overall welfare of their families.

This report, therefore, addresses itself to three major objectives: (1) to analyze the backgrounds and profiles of New Jersey's nutritional aides; (2) to develop quantitative relationships between the existing individual aides' background variables and their success as determined by their scores on evaluation in the program; and (3) to make recommendations on how the developed
quantitative relationships might be used to predict the success of future aides and to show where emphasis should be placed in the training of aides.

Procedure

Based on a review of the literature and interviews with persons who had worked or were currently working with the Nutrition Education Program, relationships were hypothesized between the effectiveness of aides (as measured by a total evaluation score) and their individual characteristics, such as background and training. Second, using sources of secondary data supplemented with a survey, the data were collected. Third, a quantitative, objective estimation model of success for nutrition aides was developed, and last, the model of hypothesized relationships between success of nutrition aides and their individual background variables was tested.

General Framework

When hypothesizing a framework to predict effectiveness of aides, two problems become identifiable: (1) What variables should be included that could reasonably be expected to show a relationship to effectiveness, and (2) how can effectiveness itself be measured?

It is often generalized that an aide's effectiveness is positively related to both formal education and on-the-job training, and to the time spent in a nutrition education program. In addition to education and time in the program, this study will examine a more comprehensive list of variables that were hypothesized to bear a relationship to an aide's effectiveness. The variables examined in this category were: age, daily work attendance, automobile and driver's license, body weight relative to size, number of children, ethnic background, language fluency, distance between home and work, other job experience, whether employment as aides was full or part time, and working conditions as reflected in the county units themselves. Last, and most difficult to examine, are a large number of variables that have been hypothesized to relate to effectiveness but are difficult to quantify and very difficult to separate from other variables. Variables such as empathy, compassion, perception, and maturity, are only indirectly included in this study (Spindler, 1969).

Data Sources

A survey was conducted to collect all of the above data on each active aide in the New Jersey Nutrition Education Program. Active aides were defined as those who work directly with the low-income families and youth groups, and not those acting as program secretaries and coordinators. Data were available for 777 active aides. Since much of the collected data were considered personal, individual aides were coded numerically to
conceal their identity. The aides work in one of eleven different geographic locations in New Jersey. Each unit location, which is organized on approximately a county basis, has one or more home economists and is independent from other unit locations.

Copies of the most recent Aide Evaluation Report, completed by the home economists in conjunction with the individual aides, were utilized in developing estimates of the success of aides in the program. It was not possible to include the entire aide population in the New Jersey program since the evaluation is not mandatory, and, subsequently, it is not used by all administrators. In total, there were 77 aides for which there were useable data in all categories.

Rating Scales

The evaluation reports have 20 questions, each of which pertains to a different aspect of the aide's performance. In each question, the aide is rated into one of five categories ranging from unacceptable to outstanding. In order to quantify the evaluation, a numerical value was assigned to each of the categories. The values assigned ranged from one for an unacceptable rating to five for an outstanding rating. Therefore, each aide received a score from one to five on each of the 20 questions. Summing the scores on each of the 20 questions resulted in total scores with values between 20 and 100. It was assumed that this value represents an actual measure of the total performance for the aide. Thus, the more success with which the aides perform their duties, the higher their total scores on the evaluation should be.

Regression analysis was used to examine the relationships between an aide's characteristics, such as background and training, and what success was accomplished. A model was also constructed to predict the success of a prospective aide.

Results

While exploring objective one it became obvious that a great deal of diversity of data existed and as a result, no attempt will be made to formally summarize the findings. A few generalizations however can be made reasonably. First, the large variation both within and among most units can, in part, be explained by two factors: (1) the time that the unit had been in operation, and (2) the overall, size of the unit. Second, the representative nutrition aide in the New Jersey Program has the following characteristics: a black, 39-year old mother with three children who has had 12 years of formal education and been employed in the New Jersey EFNEP for 20 months. Finally, most of the aides in the New Jersey Program live and work in urban areas.

Background variables were hypothesized to be related to total scores. No attempt was made to determine the direction or strength of the relationships. When the variables were plotted individually
against total scores, a large number of variables displayed either positive or negative graphic relationships.

Mathematical relationships between total scores and each of the individual background variables were hypothesized on the basis of the preliminary graphic results and a priori knowledge. The hypothesized relationships were then tested using simple linear-regression analysis. In explaining the variation in total scores, the following seven variables were found to be significant at the five-percent level: employment in the units of Mercer or Cumberland Counties, access to an automobile, the age category of 55 or more, and time in the program, all of which were positively correlated; and employment in the units of Passaic or Essex Counties which were negatively related.

From the analysis, it was evident that certain units have definite relationships to the success of nutrition aides as measured by their scores on the evaluation reports. In building a model to predict the success of a prospective aide, the underlying cause of these relationships becomes crucial. Three hypotheses were assumed to explain the possible relationships:

(1) There are conditions within certain units which influence the success of an aide.

(2) There is a bias in the scoring of the evaluations in certain units which would influence the total scores, and, equivalently, the measures of success for each aide in the unit.

(3) There is a combination of both conditions in certain units which influence the success of an aide and a bias in the scoring of certain units.

If assumption 1 is accepted, the effects of certain units upon the success of a nutrition aide should be included in the model since they are important in determining how well an aide will perform in the Nutrition Education Program. That is, the working conditions, training procedures, or other factors present in certain units may influence the development of aides within the program. If one accepts assumption 2, the total scores should be adjusted to remove the bias resulting from the scoring of the evaluation in order to give a standardized measure of success. An attempt to remove this unit bias is discussed during the development of the second model. Accepting the last assumption, one would have to remove that part of the effect which is biased and include that part which actually influences the success of an aide.

Two theoretical models were hypothesized. The first, based on assumption 1 (that conditions in certain units influence the success of an aide), used total score as a function of the background variables and included the unit in which the aide worked.
The second model was based on assumption 2 (that there is a bias in certain units) and used an adjusted total score as a function of the background variables (excluding the unit in which the aide worked). A third model based on assumption 3 was not hypothesized because of a lack of information necessary to determine what combination of bias to subtract and influence to include.

First Hypothesized Model

The parameters of a model to predict the success of a prospective nutrition aide were estimated through the use of a stepwise regression program. The background variables were regressed against the total score received in the evaluation report for each aide. The final estimated model was:

\[
TS = 70.90 + 18.1U_{15} - 11.2U_{17} + 8.75U_{17} + 5.5^*Ag_2 - 93U_{j2} + Z_i
\]

\[
(2.64) \quad (3.58) \quad (2.80) \quad (1.92) \quad (2.8)
\]

\[
TS = \text{total score} \quad U_{12} = \text{unit} 12 \quad \text{-- Essex}
\]

\[
Ag = \text{older age category} \quad U_{15} = \text{unit} 15 \quad \text{-- Mercer}
\]

\[
Z_i = \text{Unexplained random variation with } \sigma^2 = .389 \quad U_{17} = \text{unit} 17 \quad \text{-- Passaic}
\]

( ) = t values

This model explained 61 percent of the variation in total scores for the aides included in the study. Both the model and each of the five independent variables in the model proved to be statistically significant at the five-percent level.

Model 1, which was developed under the assumption that there are conditions in certain units which influence the success of an aide, might, theoretically, be used to predict the success of a prospective aide. One must remember, however, that this model explains only 61 percent of variation in total scores. Therefore, the scores it predicts are not totally accurate.

To predict the success of a prospective aide with the first model, one needs to know the unit for which the aide applies and the age category in which the aide is classified. All variables in this model will have the values of either 1 or 0 since they are all dummy variables.

The lowest total score (60) this model would predict would be for a prospective aide who is less than 45 years of age applying for a position in the Passaic unit. In contrast, the highest total score (95) would be for an aide 55 years of age or older who is applying for a position in the Cumberland unit.
Using these evaluation scores and assuming representative
data, high correlation between total scores and success, and no
bias in the scoring of aides within individual units or over-
time, then the following comments seem appropriate, given the
above model:

(1) Those prospective aides who received higher predicted
total scores are by definition more likely to be suc-
cessful.

(2) Since there are conditions in Mercer and Cumberland
units which lead to the development of more success-
ful aides, these units should be examined more closely
Also, since there are conditions in Essex and Passaic
units which lead to the development of less successful
aides, these units should also be examined more closely

(3) A concentrated initial training period was not found
to significantly affect the success of the aide. This
finding is somewhat inconclusive since there were so
few observations on people who did not receive the
concentrated training. A closer examination of this
training may be necessary in order to determine how
to improve it.

(4) Enrollment in college courses while participating in
the program was not found to have a significant effect
upon the success of aides. Although this in itself
does not justify recommending that course costs should
not be reimbursed with program funds, it does present
some interesting doubts. Again, a further examination
seems necessary.

(5) The fact that time in the program had a significantly
positive effect on the success of aides might tend to
indicate that the program is succeeding in developing
good aides internally-

Second Hypothesized Model

In order to develop the second model, it was necessary to ad-
just the total scores by subtracting the assumed bias in scoring
of the evaluation in certain units. The first step was to esti-
mate this bias. Since the coefficients of the unit variables in
the first model are, by definition, the additional effects upon
total score of being in each of the corresponding units, they
were used to estimate this bias. The values of the coefficients
were subtracted from the total scores of each nutrition aide in
the corresponding units. The resulting total scores would be ad-
justed for the bias present in certain units and could thus be
used as measures of success in the second hypothesized model.

The stepwise regression program was also used in the develop-
ment of the second hypothesized model. When the background
variables were regressed against the adjusted total scores, the resulting final model was:

\[ TS = 77.77 - 0.20E_1 + 6.01A_6 - 6.36A_r + Z_2 \]

(1.87) (1.7M) (3.01)

\[ TS = \text{adjusted total score} \]
\[ E_1 = \text{recent work experience (factory work)} \]
\[ A_6 = \text{older age category (Je5 or more years of age)} \]
\[ A_r = \text{living and working in the same general area} \]
\[ Z_2 = \text{unexplained random variation with } \sigma' = 788 \]

( ) = t value

The second model explained 21 percent of the total variation in adjusted total scores for the aides included in the study. Again, both the model and each of the independent variables included in the model proved to be significant at the five-percent level.

Using Model 2 to predict the success of a prospective aide, one needs to know the following information:

(1) The age category in which the aide is classified.
(2) If the aide plans to work and live in the same area.
(3) If the aide's recent work experience was in a factory.

Each variable in this model is also a dummy variable and will have the value of 1 or 0. Since this model explains only 21 percent of the variation in adjusted total scores its predictions are not totally accurate.

The lowest adjusted total score (67) which this model would predict would be for a prospective aide who is less than 65 years of age, who lives and works in the same area, and whose recent work experience was in a factory. In contrast, the highest adjusted total score (84*) would be for an aide who is 5 years of age or more, who does not live and work in the same area, and whose most recent work experience was something other than factory work.

Again, using Model 2's evaluation points, assuming representative data, high correlation between adjusted total scores and success, and no bias in the scoring of aides within individual units or over time, the following comments seem appropriate given the above model:
(1) Prospective aides who receive higher predicted adjusted total scores are by definition more likely to be successful.

(2) Variation in the scoring standards and methods among units restricts the use of the evaluation reports to within single units. Unless corrected for this bias in scoring, the evaluation report should not be used as an administrative tool for the overall program.

(3) An aide's success was not affected by concentrated initial training and enrollment in additional college courses, as was hypothesized in the first assumption. Neither did time spent in the program have a significant effect on the success of an aide. This might tend to indicate that the program is not succeeding in developing good aides internally. Therefore, some further evaluation of the program might be necessary.

**Implications**

With the available data and methods of analysis used, it was not possible to predict with any reliability the degree of success which nutrition aides will attain in the Nutrition Education Program. One reason which may help to explain this failure is that, while two models were developed -- one based on the assumption that conditions in certain units influence the success of their aides, and the other, that there is a bias in the scoring in certain units -- it was not possible, without additional knowledge, to develop a third model based on a combination of the two. Another explanation for the inability to predict success of an aide is that other data were not available to represent factors such as maturity, empathy, compassion, and other characteristics which may influence success. A third explanation is that the measure of success used (total score and adjusted total score) does not provide a good estimate of the aides' actual performances. That is, the evaluations being used in the program might not be an accurate measure of the aides' performance.

Of all the variables which were originally hypothesized to be related to success, only one besides the unit variables consistently proved to affect the success of nutrition aides at a significant level. This variable was age. Aides who are 45 or older are more likely to be successful in the program than are younger aides. There are several possible reasons for this. Older aides have had more of an opportunity to raise a family and are better acquainted with the problems involved; older aides may be more mature and experienced in dealing with people in general, and older aides may gain the respect of homemakers more easily because of their age.

**Recommendation for Future Work**

There is need for a more highly developed theoretical
framework from which hypotheses can be evaluated in people research. Although people-evaluation research is still in its infancy, it appears that a great deal of the research has been based on limited case studies and/or a shotgun approach.

Second, people research should concentrate more on a multidisciplinary approach. By its nature, people research cuts across a wide spectrum of disciplines, and, therefore, must be conducted from a broad base. This does not imply that individual disciplines should not study people problems, but rather that expertise from many areas should be coordinated.

Third, there is a need for greater in-depth data at both the individual and group-interaction levels. Reliable data from both cross sectional and time-series studies are needed on both traditional variables and on interrelated variables such as, compassion, maturity, motivation, and security. The need for a multidisciplinary approach is again obvious.

Last, since the New Jersey Expanded Food and Nutrition Education Program is relatively new and in-depth data have not been generally available, the program should be reevaluated at a later date using a multidisciplinary approach.
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PATHS OUT OF POVERTY RESEARCH
IN PENNSYLVANIA: 1968-1974

J. Patrick Madden

Two types of research have been done at Penn State within NE-68: examination and evaluation of selected programs, and determination of the impact of various factors related to low income.

Research has been done on several programs related to poverty in general, and to selected target groups experiencing a high incidence of poverty (e.g., the elderly). These programs include Food Stamps, Commodity Distribution, Negative Income Tax, Nutrition Education and Congregate Meals. The primary evaluation emphasis was to determine program effectiveness on enhancing dietary intake of the poor. Other impacts of these programs were also examined and are discussed below.

A second research direction consistent with the purposes of NE-68 has been the identification of characteristics associated with low income. This study measured the effects of selected characteristics on the hourly earning and annual hours worked by household heads.

Food Stamps, Commodity Distribution and Welfare Checks: Comparison of Dietary Impact

The primary purpose of a study by Madden and Yoder (1972) was to answer the question: is the adequacy of a poor family's dietary intake enhanced by its participation in family food aid programs? The study was designed to determine changes in adequacy of the family's diet as the family changed program participation status. It was hypothesized that families participating in these programs would have better diets than those not participating, other things being equal. Furthermore, it was hypothesized that families who drop out of the programs would have less adequate diets than those who remained in the programs.

Three family food programs were involved in this analysis. First was the Commodity Distribution (CD) program; second was the 1969 Food Stamp program as it existed prior to April 1970 (FS1); and third was a revised Food Stamp program (FS2), which included modifications adopted in April of 1970 (Madden, 1970b). It was hypothesized that families who remained in the food aid programs would have improved diets as they moved from CD to FS1 to FS2. The strategy of this study was to obtain and analyze data from a sample of low income families at crucial points in time: just before and just after

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changes in availability of these food assistance programs. Five surveys were conducted: three in Bedford County and two in Huntingdon County. More than 1,100 interviews were completed, and 1,001 of these were sufficiently complete to warrant their inclusion in multivariate analysis.

This study dealt with the estimation of the effects of CD and FS programs on the dietary adequacy of the participants because improved nutrition was the primary purpose of the program. However, other effects are also considered, including changes in participation, cost-effectiveness, nutritional efficiency, and effects on food purchase.

Dietary Effectiveness—CD Versus Non-CD in Bedford County

The CD program, as it was operating in Bedford County in June 1969, had no significant impact on the overall dietary adequacy of the participating families. It was hypothesized that a significantly beneficial effect would be observed, particularly during the first two weeks after the CD food was received. Similarly, it was hypothesized that when more than two weeks had elapsed since payday, these effects would be greater than during the early part of the pay month. Neither of these hypotheses was supported by the evidence found in this study. The program seemed to have no significant effect under either condition.

Dietary Effectiveness—FS Versus Non-FS in Bedford and Huntingdon Counties

In each of the surveys conducted, somewhat better diets were found among FS than non-FS families, under certain circumstances:

1. The beneficial effect of food stamps was apparent only within the first two weeks after the family purchased the stamps. Very little benefit was found later than two weeks after purchase. Apparently a disproportionate share of food stamps were spent soon after they were purchased.

2. Similarly, the nutritional benefit due to FS was perceptible only when some time had elapsed (more than two weeks) since the family had received its major income for the month. These differences in dietary adequacy were statistically significant (at the 5 percent level of probability) in Bedford County, indicating very little likelihood that the results are due to random variation. In Huntingdon County the improvement due to FS was less significant. Among those families interviewed within two weeks after receiving their major income, no significant difference was apparent between FS participants and nonparticipants.

3. The dietary difference between FS participants and nonparticipants was expected to be somewhat greater with FS2 than FS1. However, no consistently significant difference was found between the two programs.
Cost Effectiveness and Nutritional Efficiency

Cost effectiveness comparison of FS-1 and FS2 showed the FS2 program provides more income transfers than FS1, but little difference in nutritional benefit. Consequently, the FS2 program has a higher cost per unit improvement in dietary intake of recipient families.

The nutritional efficiency with which the low-income family's food dollar is spent was also analyzed. It appears that during conditions of relative plenty (when more ample food resources became available, either through recent purchases of FS or recent receipt of income), the family got significantly less nutritional value per dollar of food purchased. Under these conditions, nutritional efficiency was found to be significantly lower for users of FS-1 and FS2 in Bedford County and FS2 in Huntingdon County than for their respective comparison groups.

Foods are usually selected for taste satisfaction rather than nutritional value. Low nutritional efficiency in use of the food dollar by Food Stamp recipients suggests the nutritional impact of the program would be greater if the official list of foods which families can buy with Food Stamps were altered to exclude items that have low nutritional value per dollar of food cost (candy, soda, etc.)

Analysis of similar longitudinal data from 800 families in Iowa and North Carolina is being conducted in cooperation with the Institute for Research on Poverty at the University of Wisconsin. The analysis is designed to determine whether a cash payment (the Negative Income Tax) would provide dietary improvement comparable to that of the Food Stamp program. In other words, if the objective is to increase the adequacy of dietary intake of low-income families, can this be accomplished at lower public cost using a direct cash program than with a food stamp program? Results suggest that neither program is particularly effective in changing the dietary behavior of the poor. However, recent findings from two validity studies conducted at Penn State (Cordes, 197*0; Madden and Gerwick, 197*0 suggest these impact findings may contain a significant downward bias. That is, the 24-hour dietary recall may be vulnerable to false negative results, which would imply that the programs may have greater impact than our results would indicate.

Effects of Other Factors on Dietary Adequacy

Families with incomes ranging from 100 to 125 percent of the poverty line ($3,720 to $4,650 for a family of four in 1969) had no better diets than those below the poverty line, other things being equal. Those with incomes greater than 125 percent of the poverty line had significantly better diets than those below the poverty line. The implication from this seems to be that the poverty line is low in relation to dietary adequacy of the poor.

The net effects of several characteristics of the household were found to be statistically significant, though very small in practical terms. For example, families of five to six persons were found to have the most adequate diets (if other factors were held constant)—5.2 points higher than one- and two-person families, on a dietary adequacy index of zero to 100.
Families reporting home-produced food had significantly better diets (2.4 points) than those reporting none. Age of the homemaker was found to be negatively related to sufficiency of diet. Even though the effect was statistically significant, it amounted to less than 1 point decline in MAR for a 65-versus a 25-year-old homemaker.

Education of the homemaker was found not to be significantly related to the adequacy of a family's diet throughout most of the analysis. It should be emphasized that this was essentially a sample of the poor, and education beyond the twelfth grade was rare. For a broader segment of society there could be a more significant relationship.

Families were found to have significantly more adequate diets on the weekend than during weekdays.

Participation

In Huntingdon County nearly a fourth of the low-income sample families not using FS during the initial survey had joined the program by the time of the second survey, some 15 months later. In the Bedford County surveys, more than two in five CD recipients had not begun using FS at the time of the second interview (more than a month after the county had switched from CD to FS). Meanwhile, about one in four of the former non-CD families in the sample began using FS. Between Wave II and Wave III surveys in Bedford County, the FS program was improved to form FS2. When the families were reinterviewed, it was learned that 35 former FS users had dropped out, and 19 of the non-FS families had joined FS2. The net effect, obviously, was an overall decline in participation among the families interviewed in these surveys. This trend cannot be applied to Bedford County as a whole, however. The CD families were purposely oversampled in the initial survey so as to obtain an adequate number of program participants. The fact that a fourth of the former CD nonparticipants joined FS is numerically very important, and it portends a great increase in overall participation. This in fact seems to be the case: trends at county, state, and national levels indicate a strong rise in participation since the initiation of FS2. Apparently the increase in participation is coming from the large mass of former nonparticipants.

Household characteristics were analyzed to determine factors associated with participation in FS. Other things equal, lower participation rates were found among (1) smaller families, (2) aged homemakers, (3) those with income far below poverty line, (4) families in which significant reference group members (such as wife's mother or nearby friends) opposed use of FS, or (5) homemakers who had received none or fewer than 9 visits from Extension Nutrition Aides. Less than 1 percent of nonparticipants in the sample cited FS stigma ("people look down on you") as the reason for not participating. Reasons most often cited were: "not worth the effort," "too expensive," or "believe we are ineligible."

Economic Impact

Analysis of the economic impact of the Food Stamp Program by the researcher revealed it generates $180 million of economic activity in the state.
stimulates employment and enhances incomes of low-income families (Madden, 1973).

Congregate Meals and Related Programs for the Elderly: The Program Evaluation

The Pennsylvania State University is currently conducting a program of evaluative research on the Congregate Meals for the Elderly Program under contract with the Pennsylvania Bureau for the Aging. An evaluation of the Congregate Meals program in Luzerne County, Pennsylvania, is also being conducted. That program has served as a pilot study for the nationwide program. Two key features of program effectiveness were examined:

1. Participation—To what extent is the program serving the potential target population? Are there significant segments of the elderly low-income population that do not participate? If so, what types of persons (residing in isolated areas, physically handicapped, etc.) are being missed, and how can the program be modified to facilitate their participation?

2. Dietary Effectiveness—Does the program lead to improved dietary intake of those who participate? Do some types of persons (e.g., very low income) gain more than others? How is the dietary effectiveness of the program related to the characteristics of the area served (metropolitan versus isolated rural), ancillary services provided, size of the project, etc. The cost effectiveness of the program will also be analyzed, to provide a guide to program directors as to the optimum strategy for obtaining the maximum benefit from a given amount of program funds.

Participation Findings

A sample of program participants and nonparticipants in Luzerne County were interviewed during the Spring of 1973—a total of 576 elderly persons. Results of the participation analysis are reported in a report by Mary Margaret Pignone and Agnes Shawn Scanlan (1973). This report contains the methodological results developed by Agnes Shawn Scanlan in a comparison study using the same data. The purposes of the research were:

1. To determine to what extent the centers were reaching the poor and/or isolated elderly persons;

2. To develop a typology of participants and nonparticipants based on degree of economic, physical, social and psychological independence; and

3. To develop instruments for measuring independence among elderly persons.
Participants were found to be more socially involved than nonparticipants by every measure of social isolation explored. Further longitudinal research is required to determine whether this greater social contact is a function of the meals program itself or whether the program merely substitutes for other means of social contact. There is some indication, however, that the participants are not the predominantly socially isolated persons that some had anticipated. Rather, they appear to be highly socialized with a desire to increase their involvement.

The congregate centers were not successful in attracting the elderly poor. The number of persons below the poverty line for both participants and nonparticipants roughly paralleled the proportion of elderly poor for the county population as a whole. More intensive outreach efforts will be required if a greater proportion of the poor are to be served by this program.

Participants exercised moderate to high independence on every measure taken. Nonparticipants exhibited a bi-modal pattern of both extreme independence and extreme dependence particularly with regard to economic and physical items.

Economic and physical independence scales were constructed. However, the social and psychological items proved to be unscaleable. Some correlation existed between economic and physical independence. The relationship, however, was weak.

The analysis of data revealed an important methodological problem. An acquiescent response set was operative among persons interviewed in this study. It is suspected that the acquiescent response pattern will be present in research with elderly persons to a degree not normally expected. The implications of this finding for gerontological research efforts are immense.

No simple pattern of independence-dependence was evident among the older persons interviewed. These data affirm the belief that older persons cannot be easily classified. There is a tremendous variety of needs, desires, and life-styles present among them.

Further research concerning independence among elderly persons is recommended. Research is also needed to develop a clearer understanding of the total social-psychological environment in which the elderly must and do live. Future program designs should consider the diversity present among this age group. Single programs to meet multiple needs run the risk of meeting none effectively. Diversity and flexibility in program planning for the old would better utilize resources and, at the same time, broaden the range of alternatives open to the elderly. Opportunity for choice is critical to successful aging.

**Dietary Findings**

The dietary effectiveness phase of the analysis required comparisons between the actual intake and the recommended levels of intake of each of several nutrients. This requires an on-site survey of a sample of the
participants and nonparticipants in selected locations, to collect certain socio-economic data and the dietary information needed to compute the adequacy of each respondent's dietary intake. Ideally, the survey data should be collected before the program is initiated and then again several months after it has begun in the areas selected for analysis. In the Luzerne County study, it was not possible to obtain interviews prior to the program; thus, a cross-sectional rather than a longitudinal approach was used. The data for the dietary analysis are now being analyzed, and a comparison is being made of the dietary adequacy of participants versus nonparticipants (ceteris paribus via multiple regression).

Results of the dietary effectiveness phase of analysis are reported in the Ph.D. thesis of Jane Goodman, (197A). The only significant nutritional impact of the program was for Vitamin A intake among low-income elderly. No significant impact was found for any of the other nutrients analyzed, or for other than low-income persons. Her study also contains an examination of the validity of the 24-hour dietary recall method of obtaining data from elderly subjects. The findings support this method as a means of obtaining data for group comparisons of dietary adequacy.

Further Research

The valuation of the Luzerne County program is being replicated in five more counties in Pennsylvania. The analysis in the additional counties goes well beyond the scope of the Luzerne County study, by including measures of various social-psychological indicators such as increased self-esteem, social participation, morale, life satisfaction, and general feeling of well-being. The analysis also includes a determination of physical health and nutritional status. These measures require physical examinations by technically trained personnel. The purpose is to be able to determine, over a period of a year or longer, whether participation actually enhances the nutritional status and health of the elderly persons, and if so, what the cost-effectiveness of the program is under various circumstances. These various health and social-psychological factors are important per se, and they may alter the systematic nature of the relationship between the project's cost and its effectiveness. Projects were selected in five counties for detailed analysis. Some 6kk interviews of elderly persons, including 200 multiphasic screening examinations and 153 dietary recalls, have been completed. The data from the first survey are being analyzed (Cordes, 197^; Cordes, Madden, Riddick, 1975). A follow-up survey of the same persons is scheduled for May 1975. Changes in health, nutrition, social participation, etc., will be analyzed in relation to program participation.

Social Indicators for Elderly Persons

Besides the program evaluation, the Congregate Meals research produced a series of social indicator books (one for each of the 67 counties in Pennsylvania). Indicators of poverty, minorities, living alone, and inadequate housing were developed from the 1970 Census for total population and elderly population (Madden and Gerweck, 197*0– Data were presented by
the Minor Civil Division and census tract, using computer, generated maps and tables. The data books are being used by state and local officials to locate congregate meals sites and other social services for aging persons. This work was funded by a grant from the Pennsylvania Office on Aging. A similar series of books is now being produced related to children; a third series on adults will also be produced. Indicators such as poverty, health, and education are presented in maps, graphs, and tables. These books will be completed by October 1975.

**Expanded Nutrition Education Program**

Two aspects of the Cooperative Extension nutrition program were examined by Pennsylvania researchers (Heasley, Nolan, Smith):

1. the self-image changes that accompany the new para-professional role of nutrition aides; and

2. the organizational implications of adding the Expanded Youth Nutrition Program to the existing program.

**Nutrition Aides**

Recognizing that enhanced self-esteem is one of the social benefits to be sought in programs, Pennsylvania (Smith and Nolan) has surveyed new nutrition aides, before and after they joined the Expanded Nutrition Education Program. Data were obtained from 50 women, first as they began training as extension nutrition aides in Pennsylvania, and second after six months; 32 women completed questionnaires with second measures of self-esteem and their evaluation of job performance. Aides' supervisors and extension home economists provided data at the same times. It was found that aides who formerly had very low self-esteem tended to experience an improved self-image while performing their new role as aides. Major findings were, (1) 72 percent of the aides experienced a change in self-esteem; (2) more positive changes were associated with urban residence and being better off financially and socially; and (3) when work was viewed as a dead-end job, succeeding was not associated with improvement in self-esteem.

**Expanded Youth Nutrition Program**

Another study in Pennsylvania by Heasley (1971, 1972) examined the organizational implications of a change in the program of the Cooperative Extension Service. Extension personnel were interviewed to detect symptoms of role stress due to the addition of the Expanded Youth Program. The study measured opinions of professional county staff and lay leaders in Extension regarding introduction of the Expanded Youth Nutrition Program (EYNP) and its potential impact on the extension bureaucracy. Data were obtained from a parameter of lay leaders, county agents, home economists and youth agents in Maine, Maryland, Pennsylvania and Vermont who were participating in the EYNP. A selected sample of these same respondent categories were chosen from
counties not participating in the EYNP, but which were contiguous to the participating counties, as a comparison group.

Several variables were measured to indicate the role differentiation of aides and supervisors, as well as nature of the services provided to families in poverty. These variables include: (1) program design, (2) work facilitation, (3) goal emphasis, (4) support, (5) interaction facilitation, and (6) communication facilitation. Other variables included in the questionnaires include those of (1) referrals to other agencies, (2) degree of personal and interpersonal role conflict, (3) satisfaction with the job, (4) need felt for additional training, (5) hierarchy of needs status, (6) self-esteem, and (7) autonomy desired. In addition, control and background variables on age, education, etc. were included.

Respondents showed less need for role redefinition in urban than in rural areas; in agents who worked with youth than those who do not. These findings are important to program administrators, in terms of the need for further orientation and training as well as personnel selection.

Characteristics Associated With Low Income

A study by Plato and Madden (1973) examines the earnings and labor force participation of a national sample of household heads. The study is a statistical investigation of the effects that selected disadvantaging characteristics of household heads have in the labor markets. More specifically, the research is directed toward gaining a better understanding of the effects that these selected disadvantaging characteristics have on the wage rate and labor market participation of household heads. The results of this study will be useful in delineating the effects due to low levels of human capital investment (such as measured by low levels of education or lack of training) as contrasted with disadvantaging structural characteristics associated with the labor markets in which household heads work, as well as disadvantaging characteristics of the social and economic environment.

This study is not an analysis of specific government programs aimed at improving the earnings of families in the lower portion of the income distribution (i.e., the poor). However, the results are policy relevant to the goal of improving the earnings of the poor. In order for programs to be effective in improving the earnings of the poor they must be targeted at altering those disadvantaging characteristics or the effects of those disadvantaging characteristics that are important determinants in limiting earnings. The overall purpose of this study is to identify and estimate the effects of these important disadvantaging characteristics.

Several research questions guided the inquiry:

1. How large is the gap between the earnings of white males versus other labor force categories (females and non-white males), other things being equal?
2. How does the level of earnings vary with the person's age, education, etc., and how does this relationship vary with the person's race and sex?

3. How does the annual number of hours worked vary by race and sex, given the other characteristics? Do non-white females work more hours than white females, other things being equal?

Objectives

The specific objectives of this study were to identify and measure the effects of social and economic characteristics that are responsible for (1) low levels of hourly earnings during a given year, (2) low levels of annual hours worked, and (3) the slow improvement in hourly earnings over time of household heads.

Methodology

The theoretical framework for the determination of hourly earnings and of annual hours worked was based upon the Neoclassical model of supply and demand for labor. Reduced-form equations, suggested by the Neoclassical model, were used in the analysis of these two variables instead of the Neoclassical model because of problems involved in specifying structural demand and supply equations for labor. The independent variables in the two reduced-form equations are intercept and slope shifter variables (i.e., predetermined or exogenous variables) for the labor demand and supply curves in the Neoclassical model. It was postulated that these independent variables (1) measure the quality of labor services (i.e., human capital variables), (2) describe the structure of labor markets, or (3) measure the influence of the general social or economic environment. It was also hypothesized that the disadvantaging characteristics that are found to be responsible for low hourly earnings during a given year (i.e., the disadvantaging determinants of hourly earnings are also responsible for slow improvement of hourly earnings) over time.

The data used in this study were taken from a longitudinal survey of panel families, who were selected by stratified random sampling techniques from dwellings within the contiguous states of the United States by the Survey Research Center at the University of Michigan.

Least-squares multiple regression was used to test the hypothesized effects of independent variables selected from the data. An Automatic Interaction Detection computer program (based upon one-way analysis of variance techniques) was used to select interaction variables for the hourly-earnings and annual-hours-worked regression equations. An F-test developed by Chow and extension of the Chow F-test developed by Gujarati were used to select data sets for analysis across years and across race-sex combinations. The equations estimated by employing this methodology were used to estimate the effects of disadvantaging characteristics of household heads on their hourly earnings and annual hours worked.
Figure I. The Effect of Age on the Level of Hourly Earnings for the Modal Prototype Household Head.\(^3\)

Estimates were based upon Hourly-Earnings regression equations pooled across years for each of the race-sex combinations. The year variable was set equal to 1970.
Findings

Race and sex were found to have a large influence on both the determination of hourly earnings and of annual hours worked (see Figure 1). In general, the results for hourly earnings revealed that the independent variables have a larger effect on hourly earnings and that the level of hourly earnings was higher for each level of a given independent variable for white males than for the other race-sex groups. The most influential independent variables on the level of hourly earnings, other than race-sex, were found to be age, education, occupation and labor union membership. In the analysis of annual hours worked it was found that white males in general worked considerably more hours per year than did the other race-sex groups, holding other characteristics constant. The other most influential variables on annual hours worked were age, occupation, physical or nervous disability, annual hours unemployed and family size (family size had a large effect for only the female household heads).

The attempt to explain the change in hourly earnings between years as a function of the independent variables used to explain the level of hourly earnings during a given year was not successful. The hypothesis that a disadvantaging determinant of hourly earnings has a negative effect on the change in hourly earnings relative to advantaging determinant(s) "contained" in the same variable was in general rejected.

Summary

Research has been done on several programs related to poverty, plus a general analysis of factors related to low earnings. In each line of analysis, the researchers have exploited (1) opportunities for funding from sources outside the University and the Experiment Station, (2) data sources compiled by others, and (3) interests of researchers in other universities in the Northeast and elsewhere. The current thrust of NE-68 and the work going on at Penn State follows this opportunistic tradition: there is considerable policy interest and research money pertaining to (1) the elderly, and (2) rural development. The evaluation of the Congregate Meals Program and the development of social indicator books (with emphasis on the elderly) are two parallel and mutually reinforcing lines of research. As these studies are completed, we hope to provide meaningful policy research findings to local, state, and national officials and to the public in general. Our long term plans include analysis in other problem areas related to poverty, to segments of the population who are frequently deprived, and to various other aspects of rural development.
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POVERTY RESEARCH IN NEW HAMPSHIRE

James R. Bowring and John Dorrer

Introduction

Poverty research was undertaken in the mid 1960's by the New Hampshire Agricultural Experiment Station. The studies reported upon here include several that antedate the inception of the NE-68 project. Although not officially a part of NE-68 their objectives and design are consistent enough with the regional project to be included in the analysis.

In order to identify and determine the nature and magnitude of the poverty problem in New Hampshire, extensive use was made of the U.S. Census of Population and Housing and reports of the Bureau of Labor Statistics, the State Department of Health and Welfare, and the records of selected social service agencies in New Hampshire.

Identifying Poverty Areas in New Hampshire

The first study was initiated in 1965 to provide evidence of the location of poverty in New Hampshire, (Bowring and Taylor, 1965). Utilizing data obtained from the 1960 U.S. Census of Population, income, employment, and low-income statistics were tabulated by towns and counties in the state.

There were 154,000 families in 1959 of whom 15 percent received incomes of less than $3,000; there were 38,428 individuals, 76 percent of whom received incomes of less than $3,000. Rural areas of the state tended to have a higher proportion of families in the low income range than did the urban areas.

When the 1970 census became available, it was possible to measure change through a ten-year period. A second report was issued to document whether the poverty conditions were becoming more or less prevalent, (Bowring and Taylor, 1972).

The number of families with incomes of less than $3,000 decreased from 15-0 percent in 1959 to 7-1 percent in 1969—The Bureau of Labor Statistics

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minimum standard budget as established in 1970 for a family of four was $6,567. The Office of Economic Opportunity income guidelines for poverty status were $2,600 for a two person family and $4,000 for a four person family. Rural areas continued to be the place of residence for the majority of low income families.

In addition to the income data, these reports document ten-year trends occurring for employment in the state as well as participation in welfare and social insurance programs by town and county.

The Problems As Described By Low Income Persons

The two studies discussed above provided evidence of the location of poverty in New Hampshire. A further study illustrates opinions of low income families on topics of everyday concern to them and society, (Bowring and Tilton, 1967).

An interview guide was developed to encourage respondents to express themselves at length on selected subjects. Wherever possible, the original statements on those interviewed were incorporated into the published report. The attitudes expressed are often revealing and unique. For this reason, the report can be of value to social scientists and those responsible for developing and executing policies dealing with the underprivileged in New Hampshire.

Procedure

The information was designed to be geographically representative of the state and to provide urban and rural case studies for comparison of these two sectors. Two towns in each county were selected. A family was interviewed from each town. Towns were chosen on the basis of their placing highest on an index based on the percentage of families with yearly income under $3,000; the percentage of housing reported deteriorating or dilapidated, the median number of school years completed for adults and the dollars of welfare aid received per capita. In addition, case studies were conducted in the major urban areas of the state.

The following summary statements are major observations on the content of the case studies. They supplement, but are not substitutes for, the original observations and comments found in the main body of the study.

Housing

Housing conditions, in general, are inadequate. All of the accommodations visited except one were in dilapidated condition. One house was a fairly new pre-fabricated structure. Rural dwellings, because of their deterioration, may be described as shacks. In some instances, indoor plumbing and sanitation was lacking. Most of the houses were small and had approximately one to four rooms. The lack of adequate insulation in these structures contributed to increased fuel and heating costs.
Families in urban areas resided in apartment buildings, tenements, and/or duplexes under slightly better conditions. Sanitation and indoor plumbing facilities were improved over those observed in rural homes. The urban families seem to have more living space available, but lack yards.

While the physical facilities are generally poor the homes described range from cluttered and dirty to immaculately clean and neat.

Finances

Most of the families reported gross incomes under $3,000 a year. Main expenses consisted of such necessities as housing, food, utilities, heat, and clothing. A large portion of many incomes was spent on various debts and loans. About a third of the families interviewed had outstanding debts; the largest percentage of these debts involved payment for medical services.

While some families received social security and welfare, the majority did not. In addition, a few have Blue Cross-Blue Shield or job-related insurance, but most of the families have no such coverage. In fact, there is seldom enough money even for the basic essentials.

Employment

The men are usually employed as unskilled or semi-skilled workers. Many hold jobs in factories or mills; other men work on construction or in the woods cutting trees. One man said, "If someone's not working, it's his own fault." In general it was stated that jobs are plentiful, although some families said fewer jobs are available now than before. Most of the men like their jobs. Some of the men employed in factories expressed a desire for "woods" work because it is outdoors and unsupervised.

Very few of the wives worked. Even if the husband was absent, the wife was not likely to work. It may be that with the wife working family income would be raised above the poverty level.

Government and Health

In general, the families state that fire and police protection is adequate. Other services are also deemed satisfactory. However, trash collection and sewage is less adequate.

The general feeling toward lawmakers is that they are not interested in the poor. One man expressed the following typical opinion, "Politicians are elected by the rich people and they take care of the rich." This may be another element of isolation of the poor from middle class society.

It is predominantly the urban family who receives welfare. The families with no male heads receive continuous aid, whereas other urban families only call on welfare agencies when an emergency arises such as a medical expense.
Several families who have never had welfare aid are extremely proud of this fact. The people who live in rural areas do not seem to have much contact with welfare aid but express satisfaction with the agents and appropriations.

Although at the time of the study few families had been contacted by the Office of Economic Opportunity, those who sent their children to the Headstart Program think it is an excellent project. However, for various reasons several families who were contacted did not participate. While many of the families say that hospital care is adequate, many rural families live as far as 22 miles from any treatment centers. Some state that the doctors are too busy and unavailable even in emergencies. The treatment that is obtained generally is considered to be excellent.

Many of the families have had major illnesses and operations. While a few families have some health insurance, many of the families have no protection and as a result families are often burdened by heavy medical expenses.

Apparently, families take advantage of clinics when they exist in a community and when they are aware of their existence. Again, it is felt that the care is very good.

While there is an awareness of a public health nurse in an area, apparently most of the families have very little contact with her. Many say that they know one is available but few have seen her.

Education

It may be concluded that the communication between the schools and such families seems poor. For example, one family reports never having seen the school that their children attend. Although most families appear favorable toward the school and the teachers, many have little knowledge about existing conditions. A large minority express dissatisfaction with the teachers. The types of complaints reported indicate that the teachers are not interested and pay little individual attention to the children.

The purpose of the schools is seen as twofold by the poor. First, education is instrumental in acquiring a skill or getting a job. One woman suggests that schools should, "Cut out a lot of the silly courses and teach more things that helped the boys get to work." In addition, the school is deemed responsible for fulfilling moral and social needs. There is an interesting tendency for parents who remember their own educational experiences positively to express favorable attitudes towards their children's education.

Most of the schools participated in hot lunch programs. Many families, but not all, took part in this program.

Participation in extracurricular activities is extremely limited. This is true partially because there is little available besides 4-H, Girl Scouts, Boy Scouts and Parents-Teachers Association (PTA). But often no participation occurs because of lack of knowledge about existing groups and lack of money.
Pride, which is generally expressed in two manners, is an integral part of the families' behaviors and attitudes towards education. There is a concern with appearing, in the eyes of others, to be poor. One woman does not send her children to Sunday School because they lack "decent clothes". Another mother refuses to let her children eat homemade bread at school or take part in the hot lunch program because it will look "poor". Secondly, educational achievements are discussed with much pride. A husband who graduated from high school, a woman who received training as a nurse, a boy who might attend college are all pointed out with admiration.

Although there are limitations in the understanding of the goals and objectives of the educational system, many insights about education are presented by the families which reflect an awareness and concern about the system. The need for technical training is mentioned by more than one parent. More individual attention is deemed necessary. Where it occurs, it often is recognized and appreciated. Others suggest that classes should be ungraded and small, teachers should receive more pay, sex education should be undertaken by the school, and gym facilities should be available.

The only difference noted between rural and urban families in education is that rural children are more likely to be bussed to school. In general, attitudes are not negative towards this transportation.

Community

The amount of community participation of the families studied is extremely limited. While there is an awareness of formal organizations in the community such as the Grange, the Elks and the PTA, few families belong. The reasons given for not participating in organizations are varied. One woman comments that "they prefer to keep their own company," i.e., they do not identify with these formal organizations. Another woman says she is "always too busy" to join any clubs. Even if she had time, she feels that she probably would not attend because the "activities seem to be more for the people who have always lived around here."

A few families vote and attend town meetings. But those who do not may feel as one man who says that "only certain ones are allowed to speak."

Consistent with this lack of community contact is the low degree of social interaction with neighbors. The prevalent attitude expressed towards the neighbors is favorable. However, approximately half of the families do not socialize with their neighbors. One family expressed the feeling that the neighbors "do not bother each other."

Neither do many of the poor families attend church. Only one family was ever active in church.

The question may be asked that if time is not spent in church, community or neighborhood activities, how do the families spend their time? Again, there seems to be a stress on family ties. Most of the families have relatives nearby who they see constantly or very often. Thus almost all social participation takes place within the extended family. While families
say that they have no time to attend community organizations, it is possible
to infer that other variables are also operating. For instance, poor families
may feel somewhat isolated and even ostracized. They also attempt to compensate
for their lack of community ties by emphasizing the family's role in their
lives. For example, a frequently mentioned activity is that of visiting
relatives. While money may also be a limiting factor, it seems that the low
income people consider themselves as separate from the community. One woman
says, "we've lived here eight years and don't know half the people in town." Someone else states that she doesn't think what happens in town is "really
their business." Thus, isolation from a community occurs and is further rein­
forced by a dependency on relatives for all social participation.

Another factor which may contribute to the isolation of these families is
the lack of public transportation. Although many families have old cars, the
husband usually uses it as transportation to work, which leaves the wife with
no transportation.

While some families say that they would be willing to move if a better
job were available, just as many would be unwilling to relocate.

Few changes in the community are noted by these families. Some people say
things are changing for the better, others think that conditions are becoming
worse. Advantages of living in the areas which are indicated are improved
roads, more buildings and low rent. Disadvantages which are mentioned are the
lack of public transportation and poor shopping facilities. Some of the
families made the following suggestions to improve the community: increased
urban renewal, additional industry and more doctors.

Major Policy Issues for Discussion as Suggested by this Study

1. Housing is pathetically substandard; lacking indoor plumbing, adequate
    heating and insulation.

2. Medical expenses account for a large proportion of indebtedness.

3- There is need for a more aggressive welfare program with a clear
    statement on the rights of citizens and a minimization of humiliating
    experiences by the needy at the town and county level.

k. Medical care in rural areas is limited because of distance, lack of
    transportation facilities, and inadequate knowledge of public
    services available.

5. Close family ties while reducing the awareness of poverty also tend
to perpetuate poverty by discouraging association with other groups,
thus resulting in isolation.

6. Communication between parents and school teachers is inadequate or
    non-existent and restricts maximizing the potentials of children.

7. Low income families seldom participate in public decision making,
    have little political participation, and distrust law enforcement
    agencies.
The Older Poor

The problems, attitudes, and adjustments of senior citizens have received increasing attention in recent years. The steadily increasing number of older persons, the drastic changes in our society that influence the position and status of age, and the enactment of legislation designed to alleviate problems associated with the aged are forcing concerned citizens to examine the needs of the aging and society's obligation to meet these needs.

A study was undertaken to provide a glimpse into the lives of the older poor in New Hampshire, (Bowring and LeRay. 1969). The study shows that many of the older poor are not receiving adequate medical care. There is deep concern among the elderly about their ability to pay for past and future medical care. For some, housing conditions are deplorable, aggravating health problems. Improved incomes could alleviate many of their problems; however, the problem of isolation and loneliness is ever present. The problems of the aged can best be assessed by determining what the problems are as viewed by the elderly themselves - it is risky to assume that these problems can be fully assessed by those who are not experiencing them.

The purpose of this study was to identify problems and to offer prog-am solutions. It was hoped that the problems of New Hampshire's aged would oe placed in clearer focus.

Among older people, housing problems take many forms. Some people are able to adjust to poor housing conditions because they have never known anything else. A person who has spent all his life living at the poverty level will not find it any great shock to continue during old age; poor housing will very probably not be considered as the base of his troubles. One eventually learns to accept poor housing; old age would not mean giving up a nice home to live in the slums. Poor living conditions only add to the total problem. How is one to come up from a whole life of poverty when he reaches old age? How can he have a comfortable, clean home, enough to eat, and have a sense of pride in himself?

Financial problems of old people take many forms. Some have been able to take care of themselves all of their lives but now are forced to depend on others. If pensions or Social Security do not cover their basic needs, they must turn to welfare. This means a great loss of pride in most cases as well as the knowledge that they will receive only enough money to remain alive. Others have never known financial independence and have always been assisted by the state. They enter their later years knowing that conditions will never be any better.

Health problems - concern about paying old and new medical debts and being able to take care of one's self are very real for many older people. For some, financial help would not make them any better physically because they are suffering from incurable maladies. For all, however, more knowledge about, and use of, existing programs would allow the elderly to live a more satisfying life and enjoy greater mobility and self-respect. Failing health in older years increases problems in other areas; better health care could allow them to live more satisfying lives and not have them be dependent on others for the
rest of their lives. There is great loss of pride associated with dependence, especially when one has previously been able to care for oneself. In some cases, maturation only ends the cycle - the childhood experience of dependence is repeated. This time, however, there are no parents, only the government or their own children.

Many elderly people face loneliness and isolation. For those who have always kept to themselves and lived quietly, this is not generally a problem of adjustment. Their problem is lack of knowledge about the existing programs that could help them. For those who are accustomed to activity and having many friends and concerned relatives stagnant and lonely older years can make life seem senseless.

Suggestions

The study indicates the following types of activities might be initiated by concerned individuals and agencies interested in senior citizens.

(1) Many senior citizens are either not aware of existing programs or are misinformed about programs designed to help them. An intensive educational program should be launched to inform them about existing programs. A first step would be to prepare a handbook of town, county, state, and federal resources available. Care should be taken that this be very clearly written with large letters.

(2) Old age maladies frequently cannot be cured. Improvement in the services provided can reduce discomforts and change the outlook of patients.

(3) Care outside of institutions is not always available at prices that can be paid. Admission to institutions is not necessarily the most economic or preferable method for treatment. Familiar surroundings may assist in the process of adjustment to old age and to illness in old age. A visiting nurse or the equivalent may be preferable.

(k) Many of the aged are inadequately housed. Many are unable to move because of low income, ownership of existing facilities, sentimental attachments, or lack of suitable alternatives. Educational programs about home maintenance and repair might help some to improve their housing conditions.

(5) Many older people feel isolated and lonely. A feeling of being needed might be encouraged through organized activity and community development.

(6) Many of the aged feel left out of the mainstream of social activity. Their social participation is reduced because they don't belong to organizations and are not invited to join. Invitations may be refused because of lack of transportation for them. Public transportation systems might be encouraged to reduce fares for senior citizens.
(7) Many of the aged possess skills needed by employers or half the ability to be trained; they would like to supplement their low "retirement" incomes with earnings. Special programs should be developed to provide senior citizens, who want to work, with employment opportunities.

(8) In many cases, real estate taxes take a sizable proportion of income. Consideration should be given to reduction or elimination of these taxes.

Questions Needing Answers

The above activities could be conducted without major financial cost. The primary requirements would be a commitment on the part of individuals and agencies to help alleviate the problems of the elderly. There are, however, many problems about which additional knowledge should be sought before meaningful action—programs can be developed. Examples of these, in the form of questions, are:

1. What is the relationship between poverty during productive years and health, housing, and income problems in later years?
2. What types of preparation for retirement should or can a family make?
3. What alternatives are available to those now approaching retirement?
4. What is the role of public and private educational agencies in providing financial- and retirement-planning education?
5. To what degree are the problems of the elderly related to pockets of poverty?
6. To what degree are the problems of the elderly associated with technological advance which has made one-useful skills obsolete?
7. How can the elderly become involved in programs of community development?

The Characteristics and Observations of Welfare Case Workers

The program Aid to Families with Dependent Children (A.F.D.C. in New Hampshire) has increased from 1,008 cases in 1963 to 4,486 cases in 1971. A study, surveying the opinions of program caseworkers was initiated to gain insight into the function of the A.F.D.C. program, (Bowring and LeRay, 1971).

The program of Aid to Families with Dependent Children includes periodic visits by caseworkers to maintain an awareness of family problems.

When discussing their duties, AFDC workers generally agreed that they have too many clients for effective counseling. Counseling is considered their most important job. This includes listening, helping clients appreciate their own
potentials, seeking realistic goals, achieving independence and bringing about change. Some stability of welfare expenditures is necessary and this is a major responsibility of the caseworkers and their superintendents.

The AFDC caseworkers studied are relatively young. A high proportion has been employed as caseworkers for less than three years. A high proportion also entered the profession for humanitarian reasons. They are receiving satisfaction from their profession and feel their training for counseling is adequate. One-third plan to remain in the profession for more than five years while an additional 1/4 percent are indefinite about their future in social work, (LeRay and Bowring, 1972).

In terms of the characteristics studied, significant differences were not noted between AFDC Caseworkers with undergraduate major degrees in social-behavioral science and undergraduate degrees in such fields as English, history, political science, and economics.

Since joining the welfare agency, the majority has received token on-the-job training or seminars at irregular intervals. Despite their apparent lack of specialized training, the workers feel that their training is adequate for the job they are engaged in.

More than half of the workers are married to college graduates and are indefinite as to their future plans. The majority are products of middle class homes with both mother and father present, and generally with brothers and sisters. The income of their families was adequate and they were brought up in a city or a suburb in most cases. They are motivated in their work by such positive attitudes as the desire to help people and an interest in children.

The present study did not include an evaluation of job performance either from the point of reference of the supervisor or the client. Therefore, no conclusion can be reached concerning the relationship between pre-social work education and job performance. However, in terms of reasons for becoming a caseworker, job satisfaction, feeling that their training for counseling was adequate, and intentions to continue a career in social work, the differences between the two types studied are not statistically significant. To the extent that these variables contribute to individual and agency morale and ability of the individual to "do mission" the finding of no differences is significant.

Many caseworkers, because of their youth and enthusiasm, would appear to form a nucleus around which a strong group of AFDC social caseworkers could be developed. Some could be trained for advancement to supervisory and administrative positions with the agency.

A Look At Manpower Programs

Manpower training programs are designed to serve the disadvantaged worker lacking skills and education to function successfully in the labor market. A recently completed study sought to identify those factors that hinder or facilitate the attainment of post-training wage increases and stable employment, (Dorrer and Bowring).
The wage-gain analysis revealed that some of the training options (skill areas) have a greater impact upon reported wage gains than do others. Personal factors such as age, sex, and education are significantly associated with wage increases. Also, area economic conditions are of major significance when related to reported wage gains for program participants.

The analysis of post-training employment status indicated that those program participants employed in training-related occupations tended to experience significantly less post-training unemployment than did their counterparts in non-related occupations.

The assessment of the post-training experience revealed that program participants had improved their wages and stabilized their labor force participation. The vast majority of trainees contacted through the follow-up survey indicated that the manpower training experience was of benefit to them. Most program participants however, were of the opinion that the post-training placement process was inadequate in terms of finding employment. A need was expressed to include job interview techniques as a part of the training program.

Summary

Efforts to work with poverty problems in New Hampshire have provided some useful information to policy makers, officials, and other interested persons. Research to identify the location of the problem has, for the first time, profiled income, employment, and welfare status of residents on the town level. A survey of the opinions and perceptions, volunteered by low-income families and individuals has further elaborated upon the poverty issues and associated difficulties experienced first hand. The ensuing recommendations and suggestions based upon the interviews emphasize the extent of societal resources and change that are necessary to alleviate the poverty conditions. The special needs of the elderly are identified to bring attention to an often neglected segment of our population. Finally, the functions and consequences of selected social action programs are studied to determine the effectiveness of the particular strategy designed to confront the poverty problem directly.

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PATHS OUT OF POVERTY RESEARCH—POVERTY, SERVICE ACCESS, AND INEQUALITY IN RURAL NEW YORK

James W. Converse*

Cornell work on NE-68 consisted of model building, information dissemination, and evaluations of intervention programs oriented toward reaching various categories of needy persons, many of whose incomes fall below the poverty line.

The primary vehicle for Cornell involvement came through intervention programs in two upstate New York counties—the Chenango Development Project (CDP) (Erickson and Boisvert, 1975), and the Operation Hitchhike (OH) Rural Manpower Extension project in Schoharie County (John and Rayner, 1975; Converse and Wright, 1973).

Cornell used its NE-68 funding to carry out research supportive of the intervention programs both directly in the target counties and indirectly in related work in other counties. Cornell's involvement in the two counties included intervention as a change agent, and supportive background research on relevant topics—particularly legal, housing, health and employment problems; structure of poverty; and communication with low-income persons. The research work had a very strong applied focus and thus a very short turnaround time. Results were fed back to program advisory boards as soon as available. Efforts to input data to various client groups followed some innovative formats such as newsletters and video tapes.

Additionally, Cornell used NE-68 funding to carry out experimental communication programs with low-income persons in the New York counties of Essex and Ontario (Colle, 1973).

This report details Cornell University's involvement as it relates to NE-68 funding. It summarizes the major findings in terms of intervention strategies, paying special emphasis to the University's role as a purposive change agent, and in terms of the major research efforts carried on in conjunction with the intervention programs.

As background to the major body of the report, we turn first to brief summaries of the two intervention projects.

Project Descriptions

The Chenango Development Project

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New York's Chenango County is a predominantly rural county of 46,363 residents located about 35 miles east of Cornell in upstate New York. The largest community in the county contains about 9,000 residents, with most of the county villages having less than 2,500 residents. Chenango County has experienced a steady increase in population—7.2 percent between 1960 and 1970. Chenango ranks about the midpoint among New York counties in terms of wealth and poverty indicators—median family income, for example, was $8,982 in 1970; per capita income $2,700. Only eight percent of Chenango families earn less than $3,000 yearly (Larson, 1973).

Structure of the Project

The Chenango Development Project was organized in the fall of 1970, with a field staff in the county and a support team at Cornell. The field staff consisted of a community development resource specialist whose job was to work primarily with existing organizations, agencies and community leaders; and a human development resource specialist who was to work primarily with individual county residents, and most specifically with the poor. Formally, the field staff was responsible to the Cornell Extension Division which had a county-level program including a local staff and county advisory board.

The support staff at Cornell consisted of a research associate who was to provide data collection and analysis. Additionally, an ad hoc council of faculty members from several disciplines met regularly to provide intellectual support and analysis for the field staff and to draw parallels between the field work and generally accepted scientific knowledge. This group served both to synthesize prior knowledge and to engage directly in model building and program monitoring. The majority of this group was from Cornell's Department of Rural Sociology, with representation from the Department of Communication Arts, and Cooperative Extension, and to a lesser degree from the Department of Consumer Economics and Policy Planning, and the Department of Agricultural Economics.

Major Activities

Major results of the four-year CDP project included (a) organization of several new interest groups in the county, including a group of welfare recipients and a cooperative nursery school; (b) a corporation designed to provide legal assistance to low-income people; (c) establishment of "The People Mobile," (Farley, 1971) a traveling converted bus which housed a team of low-income area youth and college students trained to provide information on existing social services, assist in solving problems of individual low-income families, and refer families to existing social service agencies; (d) a county interagency council composed of representatives of a variety of county agencies; (e) provision of a variety of data to existing agencies and organizations.

Research

CDP research activities included (a) a "windshield survey" of existing
organizations; (b) a countywide sample survey which pinpointed county socio-economic conditions; (c) residents' perceived needs and problems, and social and political participation; (d) special analyses of U.S. Census data relative to the county; (e) a manpower survey (in cooperation with the New York State Department of Labor); (f) a housing survey; and (g) numerous responses to specific agency requests for data, particularly from the U.S. Census.

The Chenango Development Project became enveloped in considerable controversy in the county stemming primarily from activities of the welfare recipients organization. As a result, midway through the project, Cornell administrators gave control of field activities to an advisory board of Chenango County residents. Funding for the action programs were terminated in July, 1974.

Schoharie County Operation Hitchhike

Schoharie County is relatively more economically deprived than Chenango. One of the state's smaller counties with 24,750 residents, the county, while not the state's poorest, is among a group at the bottom of the rankings. Ten percent of its families earn incomes below poverty levels. The median per capita income is $2,522. Schoharie, too, showed a population increase—9.8 percent between 1960 and 1970, although the county has seen an increase in townships at the northern end of the county adjacent to the Albany urban area, with continued decline in the primarily dairy farming areas of the southern part of the county. The county has been marked by a decreasing agricultural base, with the percentage of employment in agriculture dropping from 23.2 percent in 1960 to 11.7 percent in 1970. Increasingly, Schoharie County residents have looked toward the Albany urban area for employment (Larson, 1973).

Structure of the Project

The Schoharie project was set up to provide employment by "hitching" this new service onto a service delivery network already existing in the county—the Cooperative Extension agency. The project hired its own field staff which worked out of the county Cooperative Extension headquarters. A full-time project coordinator was located on the Cornell campus.

Major Activities

The Schoharie project was solely concerned with employment. Functioning as an employment office, it carried out a variety of functions including intake, interviewing, some counseling, job referral and placement, contracting potential employers, etc. The Operation Hitchhike manpower specialist estimated the program year 1973-74 cost to the county at $50,000, and the total cash benefit to the county as $2.25 million in total earnings. From those placed in the first year of program operation, the total cost was higher but most of this was borne by the larger Department of Labor grant. The first year return was placed at $750,000 (Cobleskill Times Journal, 1975).
Table 1. Selected Demographic Comparisons: Chenango, Essex, Ontario, Schoharie Counties, New York*

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<th>Chenango</th>
<th>Essex</th>
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<tr>
<td>Total population</td>
<td>46,368</td>
<td>34,631</td>
<td>78,849</td>
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<td>Population change</td>
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<td>Percent employment in agriculture</td>
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</tr>
<tr>
<td>1960</td>
<td>15.5</td>
<td>6.0</td>
<td>9.6</td>
<td>23.2</td>
</tr>
<tr>
<td>1970</td>
<td>8.2</td>
<td>3.9</td>
<td>5.5</td>
<td>11.7</td>
</tr>
<tr>
<td>Median family income</td>
<td>$8,983</td>
<td>$8,145</td>
<td>$10,511</td>
<td>$8,278</td>
</tr>
<tr>
<td>Rank of median income in New York*</td>
<td>37</td>
<td>54</td>
<td>12</td>
<td>52</td>
</tr>
<tr>
<td>Per capita income</td>
<td>$2,750</td>
<td>$2,625</td>
<td>$3,066</td>
<td>$2,542</td>
</tr>
<tr>
<td>Percent families with income below poverty level</td>
<td>8.2</td>
<td>9.8</td>
<td>6.4</td>
<td>10.2</td>
</tr>
<tr>
<td>Size of communities above 2,500 population</td>
<td>Norwich</td>
<td>Lake Placid</td>
<td>Geneva</td>
<td>Cobleskill</td>
</tr>
<tr>
<td></td>
<td>8,843</td>
<td>2,998</td>
<td>16,798</td>
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<tr>
<td></td>
<td>3,568</td>
<td>10,488</td>
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</tbody>
</table>

"Data from Olaf Larson, The People of New York State Counties, Cornell Community and Resource Development Series No 6. Ithaca, N.Y.: Cornell University, 1973-

*Rankings based on 57 New York counties, excluding New York City counties."
Poverty and Intervention Strategies

Cornell efforts under NE-68 looked at poverty as a social concern, pointing to the multidimensionality of its causes and manifestations (Stockdale, 1972; Hickey and Converse, 1974). This underlying multidimensionality points to a multiplicity of intervention strategies (Stockdale, 1972). Cornell's study of alternative intervention strategies attempted to apply several of these alternatives. Only locality level strategies were actually attempted, i.e. no attempts were made to influence national level policies or apply national strategies.

In action programs specific interventions can overlap one or more assumptions, yet they can be conceptually separated into at least three major categories: (1) structural differentiation; (2) organizational development; and (3) client organization.

Structural Differentiation

The structural differentiation model assumes that some needs of poverty persons go unmet because an agency or agencies do not exist which are mandated to answer those needs.

One major strategy, therefore, is to set up new structures mandated to fulfill certain needs. Implicit is the assumption that the services in question are needed.

This was a major strategy of the CDP, which included (a) establishment of a corporation to provide legal services to the rural poor; (b) the People Mobile; and (c) a self-supporting day care center (with a sliding fee schedule) to overcome the county's inadequate child care facilities. All three structures successfully mediated some of the problem, though they were not enough, of course, to eradicate all of the problems throughout the county.

Tactically, Cornell intervention based on these assumptions involved direct intervention in the county by field staff members who initiated and organized these structures.

Frequently rural areas lack the resources to provide structures which local people recognize as important for resolution of particular problems. This fact shows up in the supposed "pull" factors in rural outmigration—factors which represent responses to societal choices to provide urban areas with a variety of services not provided in rural areas. The question of equity of access to services on a rural-urban basis is thus a challenge to what has come

"One aspect of the service needs study in Chenango County was the extent to which multiple needs clustered both by geographic regions and socioeconomic composition, i.e. many clients needed services in several areas."
to be called the myth of metropollyana, "the belief, usually tacit, that sooner or later we will all live in the great cities." (Margolis, 1973).

Yet, rural America frequently lacks the available personnel to research needs, marshal support, and organize new structures. A variant of the structural differentiation theme, then, is the need for some intervening agency (or individual) to establish linkages between the local community and outside resources to fund and develop needed structures (Griessman, 1969). Cornell played this role in several ways in the CDP—most particularly in helping to find funding for "The People Mobile," but also for the legal services corporation.

Organizational Development

In this context, organizational development means restructuring existing agencies to make them more effective and/or responsive to needs of low-income people. The organizational development assumes that existing agencies have been unable to ameliorate existing problems because of constraints on, or inadequacies within the agencies (as inadequate resources in the face of overwhelming demands, social selectivity in those serving on advisory boards, inappropriate or misdirected action, etc.). This assumption implies that through altering current agency structures and/or operations, client needs can better be served.

While organizational development could imply a number of program tactics, Cornell strategies concentrated on provision of information, proceeding from the assumption that existing agencies could do a more effective job if only they had additional information—particularly information on specific conditions and problems in the county, and perceived needs of their clients. A great deal of information was provided, but it did not lead existing agencies to restructure their services to meet the needs of the poor (Cornell strategies did not include direct attempts to work with agencies to apply that information to their programs.)

A variation on the informational input idea was formation of the inter-agency task force in the CDP. The new structure provided a forum which led to feelings of cooperation and accomplishment among agency participants, but little evidence of increased, modified, or more efficient services to the poor.

A variant on the structural differentiation and organizational development models is that in some cases in which service delivery structures exist for providing some needed services, resources are not present to utilize the existing network(s) to their fullest advantage.

Operation Hitchhike developed this assumption, building its intervention strategy on the belief that the network already existing through Cooperative Extension was both complete enough and respected enough locally to be a viable mechanism for delivery of additional services. The problem thus became one of first identifying new functions for an existing agency, and secondly providing additional resources so that existing functions and duties would not suffer through dilution of effort to the new function—in this case, manpower delivery.
It must be noted further that Operation Hitchhike defined its clients as residents living anywhere in the county, and at any income level, i.e. even though the program sought to help lower income residents, it was not categorically limited to below-poverty-level persons. Part of the reasoning was that in upgrading some jobholders to higher levels, their old jobs would be open to new aspirants. The problem here is that many jobs at lower levels (especially small farm operators and hired hands) simply disappeared.

This strategy pre-empted the frequent problem of hostility from middle income community residents who view categorical programs for low income people as "give-aways." A major result of this strategy, however, was the inequitable distribution of program services—above poverty level families received a disproportionate share of the benefits of the program (Hickey and Converse, 197**; Converse and Wright, 1973)

**Direct Client Intervention**

The third major strategy was that of direct intervention with clients and potential clients to provide linkages between the clients and the agencies chartered to serve them. Lying behind this strategy was the assumption that some poverty needs could be met if only mechanisms could be found to better link clients into the existing delivery systems.

Cornell intervention in CDP reiterated the oft-found result that poverty-level persons can indeed become organized for their own benefit despite generally low levels of participation in social and political activities.

Discussions of the Cornell advisory group on the nature of poverty and constraints on organization drew heavily on the victimizing perspective (Ryan, 1971) which places the reason for low levels of active participation by the poor in service agencies on the noncorrespondence of these agencies with the needs of the poor (Huizer, 1972). The Chenango County welfare recipients organization successfully banded together with stimulus provided by the Cornell field staff member. The organization carried out both group and individual efforts to obtain increased and improved services from the social services department. That very involvement however, generated pressures on Cornell from the "establishment" community in Chenango County, which eventually resulted in restructuring of CDP to place control over field staff in the hands of county leaders.

An alternative strategy was applied in the Ontario and Essex "Cassette Special Communications System" (CSCS) project, (Colle, 1973). This project assumed that a major problem was the difficulty in establishing functional communication linkages between agencies and certain potential clients, and that if such linkages could be established, clients would take advantage of services being proffered.

Cornell staff members designed and produced a series of audio cassettes with information on availability of various services (such as family planning, alcohol and drug abuse, VD), wove the information into locally oriented "soap operas" narrated by local people, then disseminated the cassettes to poverty families through the existing network of county nutrition aides. The
project loaned both cassettes and tape recorders to the families. Families could then listen to the information at a time and location of their choosing rather than being reliant upon the schedules of the service delivery agency personnel.

The CSCS project found high acceptability and good response among the population tested.

The Land Grant University and Purposive Change

Cornell's NE-68 could in no way be construed to test all major hypotheses of intervention strategies for ameliorating poverty conditions, nor even a sampling from a particular universe of strategies. It is possible to pull from the apparently disparate efforts, however, several generalizations on the role of the land grant university in efforts to ameliorate poverty.

First, it is clear that the university's strengths lie in traditional research and information giving roles—at least in terms of direct intervention in local communities.

The sample survey, secondary census analysis, and general information collection became the base upon which university personnel eventually rested their NE-68 efforts. It was evident that a university such as Cornell possesses the resources, capabilities, organizational structure, and mind-set which defines research and information dissemination as its legitimate, preferred role. Both its staffing pattern and administrative direction easily accommodate a more traditional data gathering and dissemination activity. In this sense, the study of poverty is seen as a legitimate, valuable pursuit by university faculty members, fitting well within the confines of accepted activity.

Second, the university campus provides a comfortable, natural "nest" for attention to community problems. The university's extension role—carried on by Cooperative Extension through its own efforts and by academic departments in the university as well—is a traditional one, even if not well defined, and another legitimized activity of university faculty members. A field project housed on the campus both finds and fits into a congenial atmosphere which views interplay between action and knowledge both interesting and useful—even though the actual definition of that marriage may be a difficult one to operationalize.

Third, it seems useful to view the university as one member of a statewide network of agencies and organizations that comprise the functional governmental structure of our society. From such a viewpoint university based change agents can better see themselves as part of a network that includes themselves and their university, rather than as forces outside the constraints of the local community.

In Cornell's Chenango project, program strategists defined themselves outside the local situation. Local elites who opposed Cornell activity on behalf of welfare recipients successfully gained the support of Cornell administrators to give control of the project to a local advisory board dominated
by local elites.

In summary, research on poverty and poverty-level people fits well within the framework of accepted university professorial activity. Advocacy on behalf of the poor, and particularly advocacy which might be construed to be in opposition to, or detrimental to, interests of local establishments fits less well within the realm of university administratively supported activities. Cornell's strengths lie in coordination and collaboration, generally using consensual strategies with local level institutional leaders. Assuming these conditions to prevail, the most acceptable use of Cornell as an advocate for the poor seems to be as that of an ally of the poor, working through local level agencies as an intermediary. Direct involvement with the poor will most easily be accepted by university administrators when it is consensual, and when it operates in traditionally defined areas such as diffusion of innovations and dissemination of information.
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1975+ "Who pays the fuel bill?" Human Ecology Forum, Vol. 4, No. 3 (Winter)

1975

Colle, Royal D.
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1973 CSCS: An Experimental System for Communicating with Hard-to-Reach People, Papers in Communications Arts Series #1, Dept. of Communication Arts, Cornell University (December).

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Farley, Jennie

Fortmann, Louise P.

Gatehouse, Michael, Lark Watson and Elanor Dorsey

Srnlessman, Eugene B.

Hickey, Anthony A. and James W. Converse

Hickey, Anthony A.

John, Bruce M. and Wendy W. Rayner
Larson, Olaf

Larson, Olaf

Margolis, Richard
1973 "Metropolis and rural poverty." The New Leader (February 5).

Marshall, Terry L.

Puerta, Ivette and Robert L. Bruce

Ryan, William.

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1970 "Poverty: situations and strategies." New York Food and Life Sciences Quarterly, 3-

Stockdale, Jerry D.

Stockdale, Jerry D. and Judi S. Clippinger
Vermont's contributing project focused upon low income farm families with some type of vocational disability. The Vermont Extension Service and Vocational Rehabilitation Division working in an integrated manner and through referrals and cooperation of various other agencies delivered health, education, and vocational rehabilitation services to the families. The core vehicle for work with the families was teams composed of a vocational rehabilitation counselor and farm family rehabilitation aides. About one-third of the families, in addition to other benefits, were placed in employment by this program. Two publications related to the project were a part of NE-68. Summaries of these publications are presented below.

An Expansion in Program Strategy to Assist Rural Families Faced With Limiting Conditions*

by

Evoln J. Niederfrank and Nelson L. LeRay**

The Rural and Farm Family Rehabilitation Project was developed to aid farm families and others with rural natural resource related jobs to obtain services and counselling. Criteria were an annual family income of less than $2,000 and an identifiable impairment which limited the vocational abilities of some member of the family. Many families were geographically isolated and few were group oriented. Existing agency programs were not meeting the social and economic needs of persons in the project; this lack was especially acute for the youth and the elderly. Therefore an intensive personal approach seemed essential.

The Vermont Extension Service and State Vocational Rehabilitation Division worked as a team in a pilot project to develop motivation and new working relationships in order to improve each family's quality of life. Farm family rehabilitation aides were trained to actively seek out and identify families. If the family wished to participate in the project, the vocational rehabilitation counselor and the aide evaluated the condition of the farm as well as the medical and vocational situation. Beginning at this stage, referrals were made to other agencies which could assist the family. Considerable time was spent in both preparing the family and the agency, and in follow-up.

The basic philosophy was that without attention to health extension education alone could not improve the family's situation, and without extension education vocational rehabilitation would not be effective. A key to the success of the project was the staff, who were carefully selected.


and trained. The families felt that staff members were deeply understanding and concerned. A second factor was the development of cooperative relationships between the counselor/aide teams. All of the agencies which were involved learned more about actual rural family needs, as well as how to better coordinate and deliver services to the total family.

Total cost of the three year project was 5^0 per family. It was primarily a self-help project, with emphasis on expanding the outreach of related educational services. From the family's perspective, a "hand up" was more desirable than a "hand out"

Vermont Rural and Farm Family Rehabilitation Project*

by


This report presents information about client families and their farm during their contact with the Vermont Rural and Farm Family Rehabilitation Project (RFFR) from March 1, 1969 to June 30, 1971. Data are from the case histories of ^50 families which include 2,089 members. Most were from northern Vermont.

Families averaged k.dk persons each, about one more than the average Vermont farm family. Nearly two-thirds of the homes had at least one member who had a disability or employment handicap. Physical examinations showed that dental problems were the leading health impairment.

Family members, aged 25 and over, had attained a median of nine years of schooling. The median age of members, 21.4 was about four years lower than that for the state's farm population as a whole. Three-fourths of the families had an income of less than $2,000 a year. Eighty-seven percent of the male household heads were farmers.

The contact agency mentioned most frequently by client families prior to involvement in the project was the Agricultural Stabilization and Conservation Service of the U.S. Department of Agriculture. After association with the project, the county agricultural extension agent had the greatest number of contacts on referral by program aides.

Referrals to the RFFR Project were successfully rehabilitated and placed in employment in thirty-two percent of the cases.


**E. H. Tompkins was Agricultural Economist and E. Schmidt is Sociologist, Vermont Agricultural Experiment Station. N. L. LeRay is Sociologist, Economic Research Service, U.S. Dept. of Agriculture.
SUMMARY OF SECTION II AND RECOMMENDATIONS FOR FUTURE RESEARCH

Summary:

Maryland carried major responsibility for designing and conducting the four state (Delaware, Maine, Maryland, Pennsylvania) research on aide effectiveness as measured by a six function measure of leadership. The research findings indicate a strong association between amounts and types of training received by the aides and their subsequent performance as measured by the six function and total leadership scores. These scores can be used to measure aide effectiveness and to indicate the effectiveness and adequacy of training programs. Since nutrition aide programs exist in all States, the scoring techniques for leadership effectiveness have national applicability.

This four state research contributed to objective two for program analyses and was regional in that the same research instruments and procedures were followed in all four States. In addition, the research contributed to objectives one and three for analyses of relatedness of impoverished families and governmental services and contributed suggestions for improving programs through assessment of effectiveness of training and performance.*

Pennsylvania contributed significantly to meeting objective two by conducting research on the effectiveness of food distribution programs in improving low income families' diets, by the evaluation of congregate meals and related programs for the elderly, by examining self-image changes of aides and the organizational implications of nutrition education for youths, and by collaboration in the four state study of nutrition aide effectiveness. In addition they contributed to objectives one and three through the study of characteristics of household heads in low income families.

Pennsylvania's studies of food distribution programs found somewhat better diets among those families receiving the foods assistance than among those not receiving it. However, these effects were apparent only within the first two weeks after receiving food assistance and when considerable time had elapsed from the receipt of the major income for the month.

New Jersey attempted to develop guidelines for the selection of nutrition aides. Most dependent variables (primarily demographic) did not show a significant relationship to aides success as noted by their supervisors. Aide effectiveness seemed to vary most according to county of employment. The researchers believe this variation results from differences in training procedures and working conditions. This conclusion is supportive of the four

*For a statement of the research objectives of NE-68 see page 1.
state research which found a significant association between types and amounts of training and aide's leadership performance.

In researching the self-help housing program, New Jersey found that the program successfully aided low income families to better their housing and that most of those participating could not have paid the price required by private contractors to construct the same units.

The New Jersey research projects contributed to objective two for program analyses and to objective three for making recommendations to improve those programs.

New Hampshire studied poverty families of all ages. Among the aged, they found health, low income, inadequate housing, and social isolation as major areas of concern.

Their studies of the Aid to Families with Dependent Children Program and the effects of Manpower Training Programs made direct contributions to objective two by analyzing action programs. They were also able to contribute to objectives one and three by making recommendations for changes in programs to aid the impoverished and the provision community and governmental services.

The findings of the New Hampshire research on the problems of the impoverished families with dependent children and the aged confirm the findings of other past and current research. Their recommendations for programs to help alleviate the problems are also consistent with recommendations by other knowledgeable professionals.

New York's research, in addition to contributing to the achievement of objective two for analyses of action programs, also contributed to objective one by analyzing the relationship between impoverished families and services and to objective four by developing social systems theory to guide future programs and research.

The New York researchers concluded social structural and cultural changes are essential to resolving the problems of the impoverished.

Vermont's research contributed to the achievement of objective three by the assessment of the family rehabilitation program and to the achievement of objective one by examining the relationships between the impoverished families and governmental services.

The Vermont experience indicates, as did the four-state study and Pennsylvania nutritional aide research, that the use of paraprofessional aides for delivery of services to low income families is a viable method of approach. It also demonstrates that two or more agencies can collaborate effectively in conducting a single program when their roles are well defined and coordinated.

Recommendations For Future Research

Pennsylvania's studies of differential effects of food distribution
programs suggest that research which relates life styles patterns to degrees of program effectiveness may prove to be helpful in the designing of programs and timing of services delivery.

Maryland's and New Jersey's research on aides indicates that research on amounts and quality of training can be valuable for explaining degrees of effectiveness variances and can also be used to design and implement more effective programs to help the impoverished.

The four-state research on aide effectiveness indicates that use of the leadership functions measures may be used for measuring aide effectiveness and for evaluating training on a nationwide scale since the nutrition education programs exist in all of the states.

New Hampshire's, New York's, Vermont's and Maryland's research indicates that more research on the effects of interagency collaboration and referral systems will be fruitful in designing more effective delivery systems. These research results also indicate that more research should be designed to utilize social systemic and societal structural and cultural variables as major independent or intervening variables.
SUMMARY

Poverty, however technically defined, is a relative term. All societies, nations contain population segments which are "in poverty" when compared with the more affluent components of the population. In some societies the poverty segment comprises so large a proportion of the population it is more or less accepted as the norm. In the United States of the late twentieth century, however, poverty is generally considered to be aberrant — something which should and must be eradicated.

Thus, the creation of the Northeast Agricultural Experiment Stations project, Paths Out of Poverty (NE-68) was, at least in part, due to this normalizing influence in the culture. With the exception of some of the New York sub-projects, the research reported upon in this compendium was not a direct effort by NE-68 related personnel to develop projects which In themselves would provide paths out of poverty. The focus of much of the research presented in this publication were attempts to study poverty situations and programs to determine if any exit paths could be ascertained.

"Paths Out of Poverty Research in the Northeast" is admittedly a too inclusive title for reporting the NE-68 research results. The studies covered only the late 1960's, early 1970's period. They were confined largely to rural populations and to rural areas in the Northeast — the largest city on which any of the studies focused was Willimantic, Connecticut with a 1970 population of 14,462. They were the product of researchers with experiment station appointments in eight Northeastern land grant institutions. It would thus be presumptuous to conclude that "Paths Out of Poverty Research in the Northeast" answers many of the questions about poverty even in such a constricted area of the United States as the Northeast.

Publication of the compendium should, however, make several contributions to the general field of poverty study in the United States. Under one cover summaries are provided of a number of poverty studies related to an important sociocultural-economic area. The bibliographic references at the conclusion of individual papers and the appendices containing the list of "working papers" and the titles of theses and dissertations derived from the parent project should provide researchers with a valuable resource. Taken as a whole, the compendium probably provides the most comprehensive source of poverty research available on the rural and semi-rural portions of the Northeast.

The Maine study, pages 17-26, confirms the existence of a myriad of difficulties which confront people as they attempt to find pathways out of poverty. Their chances for achieving a non-poverty status appear to relate more to community-institutional factors than individual personal attitudes. Many of the persons classified as being in poverty in Maine were considered to be victims of circumstances largely beyond their immediate or, at least, complete control. Their poverty status was deemed situational — caused by an unfortunate disabling accident, early marriage to an incompetent, irresponsible mate, etc.
A social system approach was employed in Connecticut, pages 27-2, to study "perspectives on poverty of residents in a small urban area." The data indicates that indeed poverty is intricately interwoven with the social systems aspects of community and particularly those related to social stratification. There are indications in the data for the need to more efficiently articulate the aims, the benefits, the consequences of anti-poverty programs to both the potential client group and to persons with higher levels of affluence.

As a conclusion to Section II of the compendium a summary of the more programmatic studies is made, especially as they relate to the major objectives of the NE-68 project. For convenience, a short summary of each state's contribution is also made below.

NE-68 research conducted by the Maryland Agricultural Experiment Station, pages 45-64, focused on "measuring the effectiveness of paraprofessionals." The major research purpose of the project was to determine whether or not a specific theory of leadership could be used to determine the effectiveness of paraprofessional nutrition aides. Results of the study indicate that effectiveness of the aides could be measured by use of a functional theory which had previously been tested only on professionals. A benefit of this finding could be the development of more efficient methods of training paraprofessionals — an outcome which could reduce costs in many antipoverty programs.

New Jersey's NE-68 project, pages 65-80, had two separate foci: analysis of the cost effectiveness of self-help housing and an analysis of guidelines for the selection of nutrition aides.

A major conclusion of the self-help housing study was that this process is a meaningful alternative to provide housing for lower income families. A potential house builder whose hourly income is less than $5-36 would save money by participating in a self-help housing project.

One advantage (which was not directly dealt with in the New Jersey project) of participation in self-help housing projects by lower income persons might be a social-psychological one. A number of the NE-68 studies documented that among the problems of being defined as "poor" are both the negative self-images poverty status people have of themselves and the negative perception of poor people held by the more affluent community residents. Working on a self-help housing project could contribute to the creation of positive self images as well as contributing to more positive community images of the poorer residents.

A second New Jersey study employed regression analysis and two hypothesized models to determine factors which contributed to the success of extension nutrition aides. The models failed to reveal fully the sought for success factors. One problem appeared to be that the models did not include factors which measured the effect of such personal characteristics as maturity, empathy, and compassion.
Of the factors tested, age appears as the most important determinant of success as a nutrition aide. Older persons (aged 65 and over) proved to be more successful than younger persons.

Pennsylvania's NE-68 related projects, pages 81-95, concentrated on analyzing the effectiveness of several federal efforts designed to alleviate the problems of poverty status. The primary programs studied were commodity food distribution, food stamps, congregate meals, negative income tax, and nutrition education.

Among the major conclusions of the studies were:

a. In Bedford County, Pennsylvania, in 1969 commodity food distribution had no significantly beneficial effects on the diets of persons participating in the program.

b. Improved diets did result from participation in the food stamp programs, but the benefits were limited and conditional.

c. The congregate meal program projects, only partially analyzed at the time of publication, indicated that the nutritional effects of the program was minimal. The only significant nutritional impact of the program was for Vitamin A intake among the low-income elderly.

d. In a study of nutrition aides it was determined that 72 percent of the aides experienced a change in self esteem; positive changes in self esteem tended to be related with urban residence and higher socioeconomic status; if the aides looked upon their job as being "dead-end" probability of an increase in self esteem was reduced.

e. A four-state study of the role stress on extension personnel who were involved in the Expanded Youth Nutrition Program determined that respondents in urban areas evidenced less need for role redefinition than did their urban counterparts.

NE-68 related studies in New Hampshire, pages 96-107, covered a variety of subjects which included:

An analysis of the extent and location of poverty in the state; a study of the opinions of low income families on topics of everyday concern to them; a case study analysis of the older poor in New Hampshire; a study of the characteristics and observations of Aid to Dependent Children case workers; an analysis of New Hampshire manpower training programs which determined that completion of a course of training had beneficial effects for the participants.

The New York projects, pages 108-118, tended to be the most action oriented of the state contributions to NE-68. In Chenango County, a field staff was developed to work with agencies who worked with individual residents and specifically with the poor. An interdisciplinary team of Cornell University professionals served as a support staff. Several accomplishments are noted in the analysis of the project:
Major results of the four-year CDP project included (a) organization of several new interest groups in the county, including a group of welfare recipients and a cooperative nursery school; (b) a corporation designed to provide legal assistance to low-income people; (c) establishment of "The People Mobile," (Farley, 1971) a traveling converted bus which housed a team of low-income area youth and college, students trained to provide information on existing social services, assist in solving problems of individual low-income families, and refer families to existing social service agencies; (d) a county Interagency council composed of representatives of a variety of county agencies; (e) provision of a variety of data to existing agencies and organizations.

One of the consequences of the intervention project was the development of friction between the local power structure and the group of interventionists. Subsequently University based administrators delegated control of the project to local elites. Such action confirms some of the social system implications of poverty problems analyzed in the Connecticut NE-68 project.

The New York analysis of Operation Hitchhike offers evidence that a university based effort, working through (hitching on) established channels can help to reduce poverty related problems, in this case, unemployment. It is estimated that a program which cost the local county $50,000 for the 1973-74 year had a net benefit to the community of $2.25 million in total earnings.

Vermont's analysis of the Rural and Family Farm Rehabilitation project, pages 119-120, is an example of the utility of an "outside" agency such as a land grant experiment station both evaluating social service programs and making the evaluation publicly available. The rehabilitation project itself is also an important demonstration that there is merit in providing more or less total rehabilitative services to handicapped people rather than to resort to the usual partially ameliorative processes.

A major accomplishment of the NE-68 project has been the relatively large amount of publications it has generated both directly and indirectly. Each of the separate state contributions contain a list of reference sources listing the particular state's NE-68 related publications. Appendices A and B, respectively, contains the lists of the "working papers" and the theses and dissertations which have been produced by NE-68. An Inventory of the cited references reveals that through June 30, 1975, NE-68, as a minimum, had generated twenty-six experiment station or other "in-house" type publications, eight journal and related articles, twenty-one working papers, five Master's theses, six Ph.D. dissertations, and three papers written for delivery at professional meetings.

The worth of the NE-68 project has in part been validated by the continuation of poverty related research at most of the agricultural experiment stations which were active participants in the NE-68 project. One example is in Maryland where NE-68 related work with the National Institutes of Mental Health "Demographic Profile System" is now being utilized under a contract with NIMH to investigate health service needs and utilization.
APPENDIX A

NE-68 WORKING PAPER SERIES

Much of the general body of this compendium is a summarization or synthesis of data which is contained in a variety of agricultural experiment station and cooperative extension service publications of the participating states. These publications are appropriately noted in the individual articles.

In addition to the use of established publication channels available at Land Grant Colleges and Universities, several of the researchers felt the need to get data out as quickly as possible and in a way that related the publications uniquely to the NE-68 Paths Out of Poverty in the Northeast research project. To meet this end, the "NE-68 Working Paper" series was created. To obtain copies of any of the working papers, interested persons should communicate directly with the respective authors. Not all of the working papers were derived directly from the NE-68 project, but they all have a relevance to it.

NE-68 Working Papers

Ashby, Jacqueline and James W. Converse

Bruce, Robert L.

Cordes, Sam

Groff, William H. and Kenneth P. Hadden

Groff, William H., Thomas E. Steahr, and Regina Goldrat
Groff, William H. and John N. Wright  

Groff, W. H. and John Wright  

Groff, W. H. and John Wright  

Hazen, Mary and Sam Cordes  

Hickey, Anthony A. and James W. Converse  

Madden, J. Patrick  

Madden, J. Patrick  

Marshall, Terry L.  

Pignone, Mary Margaret, and Agnes Shawn Scanlan  

Plato, Gerald E. and J. Patrick Madden  
Puerta, Ivette and Robert L. Bruce  
(Initially presented at Adult Education Research Conference, Chicago, April, 1972. Included in Series June, 1975.)

ScanIan, Shawn  
1973  "Attitudes of the Appalachian Poor Affecting Change Strategies."  

Stockdale, Jerry D.  

Stockdale, Jerry D.  

Stockdale, Jerry D. and Judi Schubmehl  

Tennant, Christine S. and James W. Longest  
APPENDIX B

THESES AND DISSERTATIONS RELATED TO NE-68

Cantrell, Randolph L.

Cook, Christanna M.

Carl in, Thomas A.

Fortman, Louise P

Gilles, Jere

Goodman, Susan Jane

Heasley, Daryl Keith

Hickey, Anthony A.
1975 "Inequality and Service Delivery in Utilization of Medical Services." Ithaca: Cornell University, unpublished Ph.D. dissertation.

Hoagland, G. William
Nolan, Nelda Morrison

Poffenberger, Linda L.