

DOCUMENT RESUME

ED 029 735

RC 003 444

By-Kaplan, Sylvan J., Ed.; Lindstrom, David E., Ed.

Seeking More Effective Means to Overcome Poverty. Proceedings of the Appalachia Conference on Research in Poverty and Development (Virginia Polytechnic Institute, Blacksburg, Virginia, July 17-20, 1968).

Virginia Polytechnic Inst., Blacksburg.

Pub Date Jan 69

Note-276p.

EDRS Price MF-\$1.25 HC-\$13.90

Descriptors-Action Research, College Cooperation, Community Involvement, Economically Disadvantaged, *Economic Research, *Educational Research, Interagency Cooperation, *Interinstitutional Cooperation, Poverty Programs, *Program Coordination, Research Needs, Research Utilization, Rural Areas, *Rural Development

Identifiers-*Appalachia

The purpose of the conference was to provide an opportunity for researchers, administrators, and persons working in Appalachia to inquire of one another what research has been and is being done relating to poverty and development in the region, and to recommend means for enhancing the prevailing effort. The importance of interinstitutional and interagency cooperation was emphasized, and the conference offered the opportunity for participants to share their current activities. The conference consisted of 3 major speakers and 1 panel of Federal agency representatives, who gave direction and motivation to the conference, while the major portion of the time was spent in discussion groups involving all of the participants. The groups were composed of 4 different representative areas: (1) interdisciplinary groups; (2) interinstitutional groups; (3) special interest groups; and (4) reactor groups consisting of grass roots, local community leaders. The proceedings contain the major addresses and synopses of the group discussions and recommendations. (DK)

ED029735

SEEKING MORE
EFFECTIVE MEANS
TO OVERCOME
POVERTY

SYLVAN J. KAPLAN AND,
DAVID E. LINDSTROM, EDITORS

RC003444



PROCEEDINGS OF THE
APPALACHIA
CONFERENCE ON
RESEARCH IN POVERTY
AND DEVELOPMENT

HELD AT
VIRGINIA POLYTECHNIC
INSTITUTE

JULY 17-20, 1968
BLACKSBURG, VA. 24061

PUBLISHED BY THE RESEARCH AND EXTENSION DIVISIONS
VIRGINIA POLYTECHNIC INSTITUTE
IN COOPERATION WITH
THE APPALACHIAN REGIONAL COMMISSION,
WASHINGTON, D. C. 20235

JANUARY 1969

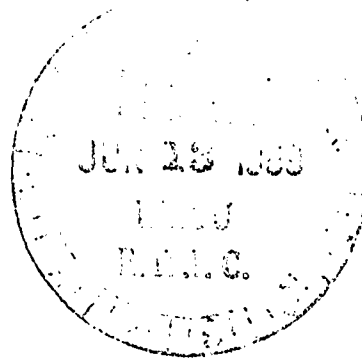
Walters-Roanoke

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE
PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS
STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION
POSITION OR POLICY.

SEEKING MORE EFFECTIVE MEANS TO OVERCOME POVERTY

EDITORS:
SYLVAN J. KAPLAN
DAVID E. LINDSTROM



PROCEEDINGS OF THE APPALACHIA
CONFERENCE ON RESEARCH
IN POVERTY AND DEVELOPMENT
HELD AT
VIRGINIA POLYTECHNIC INSTITUTE
BLACKSBURG, VIRGINIA 24061
JULY 17-20, 1968

DR. SYLVAN J. KAPLAN was Associate Dean and Director, Research Division, Virginia Polytechnic Institute from January to December 1968. Currently, he is Professor of Environmental Systems, Center for Urban and Regional Studies, College of Architecture, VPI. Dr. Kaplan came to VPI from Washington, D. C. where he served for several years in posts with the U. S. Peace Corps and the Armed Forces Radiobiology Research Institute. From 1954 to 1962 he was Professor and Head, Department of Psychology, Texas Technological College.

Dr. Kaplan received his B.A. degree in Philosophy from the University of Texas and his Ph.D. from Stanford University in Psychology. He has taught at Stanford and at Yale, and at Texas universities. His major contributions in research have been in the field of Radiation Biology. He has been extremely active as an evaluator and consultant for Community Action Programs and Head Start Programs sponsored by the U. S. Office of Economic Opportunity. He is author of 54 scientific articles and the editor of four books.

DR. DAVID E. LINDSTROM was a visiting Professor of Sociology at Virginia Polytechnic Institute from January to December 1968. He came to VPI as a Professor Emeritus from the University of Illinois where he had served on the faculty since 1933, retiring from that institution in September 1967.

Dr. Lindstrom received his Ph.D. in Rural Sociology from the University of Wisconsin in 1967. His career is filled with teaching, research, and extension service both in the U. S. and abroad at the University of Stockholm, the International Christian University in Japan, and at the College of Agriculture, Jabalpur, India.

He is author and/or editor of eight books and over 25 journal articles in fields of Rural Sociology and Community Development. Among his books are to be included RURAL LIFE AND THE CHURCH, Champaign, Ill., Garrard Press, 1946, and AMERICAN RURAL LIFE: A TEXTBOOK IN SOCIOLOGY, New York, N.Y., Ronald Press, 1948.

To
Barbara Kaplan
and
Lucile Lindstrom

ACKNOWLEDGMENTS

The editors of this report are aware of the wide and selfless contributions made to the Conference on Research in Poverty and Development held at VPI in July, 1968, and are at a loss to express the deep appreciation they hold for those contributions: the time willingly given by the members of the Sponsoring Committee; the discussion leaders and the reactors; all participants from VPI; the cordial and very hospitable help given by the staff of the Donaldson Brown Continuing Education Center; the typists and clerical help drawn both from the Research Division and the Extension Division—all of these made possible the unique conference described and summarized in Chapter I.

An individual acknowledgment of the work contributed by Dr. J. D. Richardson, Coordinator, Business Extension, College of Business, is considered in the highest order. Dr. Richardson not only relieved one of the deputy chairmen of the Sponsoring Committee when that participant had to leave the area, but assisted the General Chairman in coordinating Conference activities. Finally, as the Proceedings went into final preparation, Dr. Richardson took the initiative in bringing the document to its printed form. His work subsequently has been sustained in implementing the wishes of the participants and assisting in the development of a second meeting of many of those present.

Especial mention is due the editors' own clerical staff and that of the Research Division whose names do not appear elsewhere in this publication: Mrs. Florence Montgomery, Mrs. Rebecca Poole, Mrs. Lee Weber, Miss Sarah Duncan—all of whom have been helping at one time or another, in typing up the Proceedings and in doing many things essential to such an undertaking.

Lastly, but not by any means the least important were the wives to whom this volume is dedicated; for their constant interest, encouragement and help, as in proofreading the rough and the final manuscript; to them, too, we owe a deep debt of gratitude.

S. J. KAPLAN
D. E. LINDSTROM

CONTENTS

Part I — Orientation to the Conference	1
<i>Chapter One</i> — Introduction and Principal Findings — <i>S. J. Kaplan</i> ..	3
Purpose	3
Implementations: Internal Organization	4
The Conference Format	5
The Format of Proceedings	8
Highlights of the Findings	9
1. Interdisciplinary Group	9
2. Interinstitutional Group	13
3. Unidisciplinary or Special Interest Group	14
4. "Reactor" Group	16
<i>Chapter Two</i> — The Importance of Interinstitutional Cooperation with Cautions and a Challenge — <i>Warren W. Brandt</i>	18
Part II — The First Mandate	25
<i>Chapter Three</i> — A Critical Look at Poverty — <i>Elmer J. Moore</i>	27
Office of Economic Opportunity Research and Evaluation	29
Planning	32
Part III — Ongoing Research	37
<i>Chapter Four</i> — Some Reports of Ongoing Research in Appalachia	39
A. General Institutional Reports	39
Research at the University of Georgia on Appalachian Problems and Research Needs for the Area	39
Intradepartmental Studies on Poverty at the University of Kentucky	44
Research Related to Poverty and Development, College of Agriculture and Home Economics, Ohio State University	46
Poverty Research at North Carolina Agricultural and Technical University	48
Further Research Planned at Pennsylvania State University	49
Development of an Instructional System in Educational Policy Studies, Pennsylvania State University	50
Poverty Research at the University of Tennessee	51
Description of Research Design Components and Some Preliminary Conclusions, West Virginia University	53
Child Development Studies: Design and Preliminary Conclusions, West Virginia University	57

B. Special Reports	
1. Studies Relating to Economic Conditions	61
Alternatives for Measuring Incomes of Farms in Southwest Virginia Appalachia	61
A Computerized Plant Location Model for Market Oriented Farms, and Studies of Water Resource Project Benefit Measurement	69
Rural Land Ownership and Economic Development of a Three-County Area	72
An Analysis of the Use of the Investment Credit to Reduce Unemployment in Poverty Areas	74
Personal Bankruptcy: An Analysis of the Financial Failures of Families	77
2. Studies Relating to Improving Education and Training	81
Factors Affecting Patterns of Living in Disadvantaged Families	81
The Intellectual Abilities of Rural Appalachian Children	82
Educational and Vocational Goals of Urban Youth in South Carolina	86
The Study of Occupational Development in an Economically and Culturally Deprived Area	87
Differences Between Adolescents Who Seek Counseling and Those Who Do Not	89
Differences Between Adolescents Who Visited Community Centers and Those Who Did Not	90
An Analysis of the Intergenerational Changes in the Hierarchies of Southern Appalachian Families	91
The Northern Virginia Pilot Project in Community Education	95
3. Studies Relating to Defining and Analyzing Poverty and How to Reach and Work with Those in Poverty and Those in Ill Health	98
The Definition of Poverty in North Central Georgia	98
Evaluation of Poverty Programs	103
Experiment and Evaluation in Reaching Those in Poverty ..	107
Relationship of Maternal Health to Family Solidarity Among Low-Income Families in 28 Appalachian Counties	109
<i>Chapter Five</i> — Interdisciplinary Group Sessions' Findings	113
Economic Conditions	115
Education and Training	121
Health Conditions	125
Housing and Community Services and Facilities	129
Summary of Ideas Developed and Recommendations	132
<i>Chapter Six</i> — Interinstitutional Collaboration and Cooperation ..	135
Major Ideas and Recommendations	136
Position Papers Involving Intrainstitutional and Interinstitutional Collaboration	138

Establishment of a Regional Appalachian Research Consortium	147
<i>Chapter Seven</i> — Findings of Unidisciplinary Groups	148
How to Solve Problems in Health and Welfare	148
How to Bring Industry to Appalachia and to Improve that in Appalachia	149
Means for Improving Agriculture and Agricultural Practice	150
How Schools May Be Reorganized and How to Improve Education	151
Means of Improving Housing and Extending County and Regional Planning	152
Part IV — The Second Mandate	155
<i>Chapter Eight</i> — A Challenge to Action	157
Translating Research into Action and Service — <i>William E. Skelton</i>	157
The Appalachian Regional Commission's Research and Planning for Regional Development — <i>Ralph R. Widner</i>	158
Progress of Commission Planning and Research	169
Part V — The Conference Response	173
<i>Chapter Nine</i> — News from Federal Agencies	
Regarding Appalachia	175
Introduction, <i>William B. Harrison</i>	175
Introduction to the Panel, <i>Per G. Stensland</i>	177
The Role of Welfare and Rehabilitation in Appalachia — <i>Nathan E. Acree</i>	179
Some Roles for Education in Appalachia — <i>Alice Scates</i>	180
Some Roles Played by the Department of Agriculture in Appalachia — <i>Paul Jehlik</i>	182
The Role of the Department of Housing and Urban Development in Appalachia — <i>T. F. Rogers</i>	184
Other Considerations in the Implementation of Health Programs for Appalachia — <i>Harold F. Goldsmith</i>	188
<i>Chapter Ten</i> — Summary, Recommendations and Conclusions	190
Importance of the Problem — <i>David E. Lindstrom</i>	190
Summary Report from the Interdisciplinary Groups — <i>Wilson C. Snipes</i>	191
Summary Report from the Interinstitutional Groups — <i>Robert Coe</i>	196
Summary Report from the Unidisciplinary Groups — <i>George E. Russell</i>	200
Summary Report from the "Reactors" — <i>Donald Fessler</i>	202
Resolutions from the Floor	203
Resolution on Interinstitutional Cooperation	203
Resolution on Geographical and Functional Focus for Research Activities in the Region	204
<i>Chapter Eleven</i> — Resources and How to Use Them	205
Appalachian Computer System	205

List of Data Available Through Quick Query System	208
Publications Available from the Appalachian Regional Commission	214
Biographical Material Displayed at the Conference — <i>J. E. Montgomery</i>	217
Miscellaneous Brochures	230
<i>Appendix I</i> — Those Who Took Part	232
<i>Appendix II</i> — The Essence of Research Reports: Abstracts	245
<i>Index</i>	269

Part I

ORIENTATION TO THE CONFERENCE

Statement of purpose, method of procedure and principal findings are summarized in Chapter 1.

The types of interinstitutionalism which have succeeded along with those which have encountered difficulties, and indications of the need for such cooperation in Appalachia, are presented in Chapter 2.

Note: Names of persons who submitted papers are given following the titles of the papers, but their full identification is found in Appendix I, "Those Who Took Part."

CHAPTER ONE

INTRODUCTION AND PRINCIPAL FINDINGS

Sylvan J. Kaplan

PURPOSE

The purpose of this conference was to provide an opportunity for researchers, administrators, and persons working in Appalachia to inquire of one another what research has been and is being done relating to poverty and development in the region, and to recommend means for enhancing the prevailing effort.

INITIATION

Much of the impetus for the concept of a conference arose from ideas generated by the report of the President's Advisory Commission on Rural Poverty, entitled *The People Left Behind*.¹ This comprehensive document, while providing excellent references to research being done in Appalachia and elsewhere in the United States, leaves one with the distinct impression that too many of the research findings are generalized, fragmented, and insufficiently coordinated to provide effective support to those who would attempt to relieve the impoverished. From the many references reviewed as a result of study of this report,² one further is forced to conclude that universities and colleges, and federal, state and local agencies, too often have insufficient knowledge of what others are doing, and of the significance of their respective research efforts for action designed to alleviate poverty.

The enormity of Appalachian problems and their need for resolution, associated with the considerations above, served as the basis for designing this conference. The initiators of these Proceedings felt from the start that one response to the stated deficiencies might be to provide a vehicle whereby interested individuals might convene, and together consider ways to promote greater communication, collaboration, and cooperation.

¹U. S. Government Printing Office, Washington, D. C., Sept., 1967.

²D. E. Lindstrom, *Annotation and/or Briefing of Publications Cited by the Report of the President's Commission on Rural Poverty, With Pertinent Additions on Poverty and Development*, Research Division, Virginia Polytechnic Institute, Blacksburg, October, 1968.

The bibliographic material indicates that the great bulk of research on Appalachia has been attempted on a unidisciplinary basis. With the problems highlighted in the President's Commission Report taken as the frame of reference, it becomes eminently clear that many more interdisciplinary and interinstitutional approaches than have heretofore been employed should be strongly considered. This point suggested the composition of the attendees of the conference. The planners were deliberate in their efforts to make the participation as broad and as multidisciplinary as possible, in order that the greatest possible diversity of thinking might be brought to bear on the variety of issues.

The issues themselves were not preconceived; but the planners were aware that the conferees would of necessity have to identify the poor and determine their whereabouts. Further, the conferees would, among other responsibilities, have to seek ways for the poor to become actively involved in getting themselves out of poverty, explore for valid indices which will measure poverty, search for instruments which might be developed and employed in testing the effectiveness of efforts to alleviate poverty, and recommend further steps.

It was obvious that these considerations should be weighed by representatives of all disciplines. The task appeared beyond the scope of members of any single discipline. Further, it was clear that no institution in Appalachia possessed the expertise, the numbers of staff, the breadth of scope, nor the wealth to do justice to an effort for resolving these issues. This fact provided the rationale for not only a multidisciplinary but an interinstitutional participation in the conference.

IMPLEMENTATION

INTERNAL ORGANIZATION:

The Deans of the Research and the Extension Divisions served as Co-Hosts for the Virginia Polytechnic Institute and extended invitations to the participants. Prior to this action, the convening authorities approved the establishment of a Conference Chairman and a Sponsoring Committee with a Chairman. Those appointed were charged with all implementation procedures attendant to the meeting. The editors of these Proceedings served as Conference Chairman and as Chairman of the Sponsoring Committee, respectively. The committee was comprised of 11 faculty members representing, respectively, the Research and Extension Divisions, and the Colleges of Agriculture, Architecture, Arts and Sciences, Business, Engineering, and Home Economics. The Committee Chairman appointed two Vice-Chairmen, one of whom

assisted him with planning for the conference, and the other with planning for post-conference follow-up. The names and affiliations of these principals are shown in Appendix I.

Invitations were extended to universities and colleges impinging on Appalachia (particularly to those institutions known to have staff engaged in Appalachian research), and to concerned federal, regional, state and local agencies. Additionally, in order to insure some grass roots representation, invitations were sent to community leaders in the Virginia area who were actively engaged in helping to solve problems of those in poverty. (These local representatives were identified thereafter in the conference by the title "Reactors", as they were expected to "react" to the commentaries of the more technically-oriented conferees.) It should be stated here that industry was deliberately and regretfully omitted from representation. Limitations on funds and numbers of participants resulted in the decision to await a second meeting for involving this most critical sector of the social institutions interested in problem solving in the area, in which so many major industries are located.

As is shown in Appendix I, representatives from 27 universities and colleges in 13 Appalachian states attended, as did delegates from 15 federal and 25 regional and state agencies. There were also 10 reactors and over 50 faculty members from the Virginia Polytechnic Institute in attendance.

CONFERENCE FORMAT:

The Sponsoring Committee determined that the conference would consist primarily of discussion among participants. It limited lectures to three principal speakers and to one panel of federal agency representatives. Feeling that the conferees had been invited to exchange views, the planners arranged for them to meet in small groups and address themselves to specific topics. It was further planned that the group discussions would be so designed that discussants could convene in the following modes or frames of reference: (1) as interdisciplinary groups, (2) as interinstitutional groups, and (3) as special interest groups—identified as unidisciplinary groups. It was the express concern of the Sponsoring Committee that formal reports and position papers be presented only as reading material and not be given orally on the floor of the conference.

An elaboration of the mode of conduct of each of the three types of discussion sessions will assist the reader in better comprehending the *modus operandi* of the conference:

I. The participants in the *Interdisciplinary* sessions (involving six groups of approximately 20 persons per group) discussed the same topic each session. These groups met for seven sessions of one and a half hours each, dealing with the following topics:

- A. how to improve economic conditions
- B. how to improve education and training
- C. how to improve housing, community services, and facilities
- D. how to improve health protection and care

All conferees were provided resource material in the form of abstracts prepared by researchers from the universities and colleges represented. These were organized by topic and permitted the discussants to gain some appreciation of the views professed by their colleagues in the sessions.

The content recorded and summarized during the sessions and the digest of the aforementioned abstracts constitute the basis for the summaries and recommendations included in Chapter 5.

II. The participants in the *Interinstitutional* sessions (four such groups of approximately 13 members each were organized) met once for about three hours to discuss ways for developing greater inter-institutional cooperation. These groups contained a representative group of agency and campus administrators, some of whom came to the session with reports of work being conducted at their respective institutions. The summaries of these reports and the deliberations of these sessions with appropriate recommendations are included in Chapter 6.

III. The *Unidisciplinary* sessions, comprised of persons who came with a topical interest, were held for each of the following topics:

- A. how to improve health and to reorganize or improve welfare and community action programs
- B. means for bringing industry to Appalachia, and how to improve existing industry in the region
- C. means for improving agriculture and agricultural practice in the region
- D. how schools may be reorganized, and how to improve the impact of education in the region, and
- E. means for improving housing, and extending county, state, and regional planning

The unidisciplinary groups met on the last full day of the conference in order to permit the participants the benefit of partaking of the input from the other two types of sessions. As indicated, these sessions were open to all and were designed to provide special interest group expression as well as the expression of specialists in the topic under consideration. (See Chapter 6)

Like the others, these sessions were summarized and the recommendations arising therefrom are included in Chapter 7.

On the final day of the conference, a panel of representatives from selected federal agencies gave the conferees guidelines of their respective organizations with regard to research goals and means for obtaining support. (See Chapter 8 for this presentation.)

The conference ended in general session, with summaries and recommendations being provided by delegated persons from the various aforementioned sessions. In addition, one other summary report was given by a representative of the "reactor group". As has been previously stated, this group arrived at its recommendations through its critique of the discussions from the vantage point of soundness and practical applicability of the deliberations.

During the final session, resolutions were made which addressed the assemblage to next steps to be taken. These resolutions are included in Chapter 10.

A word must be said about the method of selection of the discussion leaders and recorders. Selection was carefully done by the Sponsoring Committee. In order to insure the most effective direction and reporting of discussions possible, requests were made of persons on the staff of the Virginia Polytechnic Institute who were willing to undertake the task. A total of 34 staff members from various divisions, colleges, and departments of the university graciously and generously offered their services, came to at least one training session each, and worked diligently to guide, record, and summarize the sessions.

The conference, thus, was designed to provide something of a "potpourri" approach. To some, it undoubtedly appeared extremely unstructured. To others, it provided opportunity for probing and stimulating ideation. By formulating problems in a questioning mode, the planners felt that they provided the conferees with the best technique for stimulating imagination and creativity.

The results, in the form of the recommendations arising therefrom . . . some of which are presented in this chapter . . . constitute one

measure of the success realized. The long-term effects must await future evaluation.

FORMAT OF PROCEEDINGS

The reader will find the contents of this document difficult to follow unless he is prepared for its format. As has been stated thus far, the conference has been conceived as a "three ring circus" with many events occurring simultaneously, and with the players diverse in background and the questions multiple.

For ease of acquiring an overview, the reader is provided herewith an annotated outline of the way these proceedings have been prepared. The book is divided into five parts:

Part One is an orientation. The introduction, statement of purpose, method of procedure and principal findings are given in the first chapter. The reader is alerted to the multipurpose intent of the conference and to the multiplicity of questions and answers derived. In the second chapter of this part the reader is enjoined to consider the importance and the difficulties of attempting to set up an organization of independent, self-willed, and otherwise preoccupied institutions whose purposes are not necessarily similar. This chapter stresses the types of interinstitutionalism which have succeeded, along with those which have encountered difficulties. It calls the conferees to consider whether the needs in Appalachia lend themselves to a resolution which may be aided through an interdisciplinary approach at all. The chapter asks that all conferees consider the effort and the cost.

Part Two. In this section of the text the national intent regarding poverty is spelled out. The author, in a keynote address to the conference, describes the attention the Office of Economic Opportunity has paid to the topic and how that agency has seen fit to address itself to research and planning. The question is raised as to whether Americans can succeed in resolving the problems of poverty and the reaction the Congress and the public has had to this approach is indicated.

Part Three contains a report of a portion of the ongoing research in Appalachia. This section refers to abstracts (presented in advance of the conference by the participants) which are summarized in the Appendix II. The section also contains position papers and reports which reflect the views and the research activities on poverty and development in Appalachia. Briefly, this portion of the proceedings compiles the subject matter around which the deliberations are built.

Part Four provides the second national mandate, given this time by the administrative and legislative branches, to the Appalachian Regional Commission. The Executive Director of that agency tells the Conference what has been asked of the Commission, what the Commission has done, and what the institutions of the regions might consider doing in response to a recognized need. This part of the text is a *call for action*.

Part Five is the conference response. This section contains the findings and the recommendations which are for all who would address research in poverty and development in the Appalachian Region to consider.

HIGHLIGHTS OF THE FINDINGS

It will be recalled that the discussants deliberated as members of a variety of interest groups and that they addressed themselves to a variety of topics. The reader undoubtedly would prefer to learn early in these Proceedings something of what it was that emerged from all the deliberations. For this reason we have decided to start the basic text with highlights of the results. Upon reading these, interested parties may then enter the following chapters with a sounder basis for evaluating much that will be subsequently presented.

I. FROM THE INTERDISCIPLINARY GROUP DELIBERATIONS

Before considering the specific questions, two general comments were made:

1. Poverty is a relative term that requires careful analysis leading to the development of an index that can be conceptualized. Moreover, there is a need for the study of instruments used to measure poverty, thereby improving conceptualization of the meanings, nature, and problems of poverty.

2. The current programs related to any phase of the total program attacking poverty in Appalachia should be evaluated to determine present effectiveness to provide guidelines for future programs. This evaluation should be accomplished by outside agencies not involved in either administering or funding the present programs.

The groups then considered the four questions previously cited. The *first question* considered was directed toward economic realities in Appalachia: *what can be done to improve economic conditions through*

(a) agriculture and industrial development, (b) capital inputs, (c) changes in the welfare system, (d) changes in the tax system? The answers included the following:

1. Research in economics should demonstrate what industries can be attracted to Appalachia and should be designed to assess resources in the aforementioned areas. This research must involve assessments of the local sociological structures, resistance to change, attitudes, class structures, education. It should be carried out by action and basic research programs with sustained communication and access among groups — a coordinated and integrated program that recognizes diversity and similarity.

2. Former adjustment studies indicate potential for improvement, but what are the necessary conditions for successful adjustment? What methods of communication are effective in bringing about adjustments? What is the maximum number of people that can be supported in agriculture in the region?

3. Researchers should develop a level of living index. This index should be based partly on non-economic indicators, i.e., percentage distribution of family income on an annual basis, and a weighted composite index of the standard of living.

The *second question* presented to the interdisciplinary groups was directed toward the problem of education in Appalachia. *What can be done to improve education and training in Appalachia:* (a) adult education, (b) elementary and secondary education, (c) vocational and technical education, (b) higher education? The following are some of the interesting comments which emerged from discussions of this question.

1. The economic problems are not nearly as important as those in the area of education. What institutional arrangements are necessary to maximize the effectiveness of all educational facilities in the region? The suggestion was made that close study of the Danish Folk Schools might contribute the possible answers.

2. Education in Appalachia must involve those things that are of the heart and the mind. The McGuffey reader defined these, perhaps, much more effectively than today's readers. Religion is thought to be the heart in Appalachia, education — the mind.

3. Community activity centers should be established for such purposes as adult education, communication, etc.

4. There is a need for vocational education, including the instilling of pride in a trade. Local political influence should be lessened while state control should be increased. Moreover, educational programs should begin at an earlier age since deficiencies show up at approximately age three. Finally, there should be more teachers' aids in the schools and more mothers involved in education, and the population of the schools should be optimized with respect to the facilities and teachers available.

5. Counseling services should be improved to make young people, particularly those with families, aware of opportunities beyond the local community. Research probably should be conducted to establish better guidelines for more effective counseling procedures. Considerable progress can be made by motivated counselors, teachers, and other persons within the local community, if adequate time and other resources are provided. Every opportunity should be provided with the means to broaden the contacts and meaningful experiences for children in poor families by exposing them to camp programs outside the local area, trips to urban centers, summer work in industries in other communities.

In the *third question*, interdisciplinary groups asked: *What can be done to improve housing and community services and facilities?* Their answers included the following:

1. Research is needed on (a) the dynamics of values, attitudes, and life styles of people in relation to different types of housing, (b) the relationship between housing arrangements used as a basis for community living and the effective participation in community affairs, and (c) factors affecting change and personal styles and effective living in different kinds of housing.

2. A study should be made of the feasibility of establishing realistic housing standards. This study should include the public desires and needs.

3. Coding standards for housing should be enforced. What would "the poor" want in terms of housing?

4. An examination of actual living conditions of welfare recipients should be conducted to determine the impact of the present programs.

In the *fourth question* the participants considered: *What could be done to improve health protection and care?* Two of their answers are highlighted here.

1. Research is needed in evaluating the present health and nutritional status of people within Appalachia.

2. Descriptive research is needed to determine the food and dietary habits of the people within the region.

Discussion groups not only addressed themselves to the four questions, but proposed instruments and techniques by which the research data may be acquired, interpreted, stored, shared, translated, and measured. Perhaps some of the most significant contributions made by the interdisciplinary groups were made in these critical observations:

1. A small group should be established to identify research resources for the purpose of locating strategic personnel, performing a brokerage function in bringing together research needs, research manpower, and research administration to perform interdisciplinary and interinstitutional (problem solving) research. Such a mechanism should also have the capability for assisting the identified researchers, the procurement of funds, and other needed resources.

2. A recommendation should be sent to the Appalachian Commission to continue to develop the knowledge bank started by the bibliographic collection at West Virginia University. This bibliographic bank is not in a readily useable form. Methodologies must be developed for obtaining information retrievable from this bank; this information must be organized by various categories: e.g., discipline, multidiscipline, and problem-focused data.

3. A study should be made of the feasibility of establishing a public service body (a) to identify unmet community needs in the public sector, (b) to develop the jobs necessary to alleviate these public needs, and (c) to train local persons who are unemployed or underemployed to fill these jobs. Although the immediate recommendation involves an Appalachian Public Service Agency, the feasibility of establishing such a body on a national basis should be considered.

4. Mechanisms should be established to link researchers to practitioners and vice versa, both for the dissemination of research fundings and for the generation of new researchable problems the researchers should examine. "We need research-action bridge people."

5. It is recommended that efforts be directed to dividing the region into smaller problem units and that the interinstitutional (university-government-private) arrangements be developed which can study regional problems and recommend viable alternate solutions to these problems.

6. The poor must become involved in the planning and conduct of actual programs and must learn to utilize effectively the resources currently administered by various agencies. Research may be required to ascertain how to accomplish this. An action program to implement the research findings is imperative.

7. Studies are needed (a) to establish models for the identification of community characteristics and power structure; and (b) to optimize the effectiveness of community organizations and activities in terms of human resources as well as in terms of physical and economic development.

8. Techniques should be developed to bridge the gap between poor people and the power structure.

9. Researchers should explore the techniques, facilities, and programs which have been developed for underdeveloped nations which can be applied or adapted to Appalachia.

II. FROM THE INTERINSTITUTIONAL GROUP DELIBERATIONS

1. The group agreed that there was an insufficient amount of interinstitutional cooperation taking place, and that every effort should be made to promote this type of activity where it seemed called for.

2. Interinstitutional cooperation should not be promoted just because it appeared to be the timely and currently "vogue" thing to do.

3. Organizing institutions into cooperative efforts should involve selection of organizations for such coalitions where their inherent capabilities permit them to be mutually supportive.

4. "Interinstitutional" should be construed broadly enough to include academic, industrial, social, federal, and any other such institution as may be deemed relevant to the objective to be achieved.

5. Interinstitutional thinking requires the presence of people who are able to work with the changing environment. These individuals must be employed in "brokering" the concept of change and interinstitutional cooperation, so that the more traditionally oriented can be made more receptive to the idea.

6. Large institutions may need to change their traditional approaches toward education, so that they may set up programs that are workable and useful for training local and community leaders.

7. We must not only look for people to change, but in turn must look toward changes in approaches to educating people for change.

8. The concept of interinstitutional cooperation must be enlarged to involve federal agencies and universities and get their combined support in helping to identify and train local leaders.

9. Interinstitutional cooperation is needed for helping to identify and allocate scarce resources. Resources, in this instance, must include both material and human resources.

10. Interinstitutional cooperation can be especially supportive in the construction and maintenance of data banks. The effective usage of such banks will improve information dissemination and assist to eliminate duplication of effort.

11. Interinstitutional cooperation would be very helpful in finding sources of funds, for collectively the cooperating groups will know a wider field of supporting agencies, and better means for obtaining such funds.

12. Interinstitutional arrangements require a determination and boldness on the part of those involved to get away from the feeling that "you just cannot do that" or "it can't be done."

III. FROM THE UNIDISCIPLINARY OR SPECIAL-INTEREST GROUP DELIBERATIONS

On the *first problem, how to improve health and welfare*, there was considerable discussion, and some very definite recommendations made. It was proposed that (1) a sophisticated regional TV network be developed for presenting health education with unsophisticated programs, (2) health facilities be reorganized to contain primary medical centers with satellite hospitals and smaller centers supported by rapid transit facilities, such as helicopters and special rail cars, (3) counseling centers be developed to assist in family planning, career development, housing, family financial management and nutrition, (4) a means be devised for the development of nonprofessional local people who would be spokesmen for the needs of people and who would represent the indigenous population in community decision making, (5) a corps of physician assistants be created to work directly with the physicians to improve the efficiency of small group medical practices.

Moving to the project proposals in the area of welfare the following research was proposed: (1) on the effect and consequences on family

attitudes from being on long-term public assistance programs, (2) on the need for standardization of programs around the country, (3) on public relations and information to interpret the present welfare situation to the public, (4) on means for providing legislative bodies with factual information regarding the proposed changes in welfare in the region.

Regarding the *second problem*, the group dealing with *improving industry in Appalachia* had five recommendations: (1) Seek to make local use of local capital; give people an opportunity to invest in their region and their future, (2) Redefine work to counteract the middle class standard that not to work is evil, (3) Consider subsidizing the people who migrate to job centers. The size of the subsidy should consider the size of the net cost to replace the abandoned home and to allow adequate time to adjust to the new location, get training and find a job, (4) Encourage mining companies to allow people to buy the homes they live in. This leads to improvement in the appearance of the homes, changing the attitudes of the inhabitants and enlarging markets for home improvement and home maintenance, (5) Given the fact that availability of labor is a major resource to offer industry, give firms locating in these regions a tax credit based on labor use and not on capital investment.

The *third problem-oriented* group tackled the problem of means of *improving agriculture and agricultural practice* in the Appalachian Region. Their recommendations were: (1) to determine the economic structure that maximizes returns in a given viable area in terms of improved living (in other words, resource allocation to farming, commercial business, processing facilities, manufacturing, etc.), (2) to conduct a feasibility study of low-income farms in a given viable area on which an advisory management input is provided. The purpose of the study would be to measure the contribution of management and to discover factors or attributes of low-income farms that deter adoption of improved methods, (3) to determine the optimum number of farms for given viable areas and what institutional arrangements can be designed to facilitate the development of optimum size farms, (4) to determine if structural changes of the agricultural industry and the banking industry have been compatible (e.g. has the merger of small rural banks with large city banks been effective?), (5) to see if loss of comparative advantage in Appalachia has resulted from failure to develop mechanization fit for its terrain (can labor-saving equipment be designed for relatively steep land?

The *fourth group* looked at the problems in *education in Appalachia*. They had the following proposals for research: (1) How can we more effectively utilize our financial resources? (2) How can we better communicate research needs and how can research be utilized in the region? (3) How can we stimulate creativity in teaching and learning? (4) How can we influence the community attitudes and beliefs about education? (5) How can we determine the relationship between attitudes and social change in the region? (6) Is it feasible to establish a model center where educational innovations and concepts might be tested and where an effort could be made to identify strategies that could be effective in working with the power structure in the Appalachian Region?

The *fifth group* to report was one on *housing and regional planning*. Four concrete proposals were submitted which called for the following: (1) Interinstitutional work on short course training programs in regional planning. (2) More degree programs in planning. (More people are needed who are trained in the science and techniques of planning.) (3) Interinstitutional teams for devising plans for local development districts in Appalachia: team approaches should be employed in this type of activity. (4) Studying the reaction of the poor to the various types of housing constructed in the region.

IV. FROM THE "REACTOR" GROUP DELIBERATIONS

The "Reactors" were impressed with the number of institutions of higher education in the area that are conducting research and with the variety and quantity of the research itself. This group felt, however, (1) that whatever research is being done may fall far short of what is needed and thus fail to provide an overall point of view to guide action groups, (2) that little evidence was given in the conference to indicate that any of the disciplines represented were sufficiently problem-oriented to have taken the time and effort to translate past research that was still valid and relevant to the problem, into a form that could be utilized by the people of the region in solving their problems. In fact, there was the suspicion that in some cases research was being undertaken primarily to avoid having to take action.

The following recommendations were made: (1) Since it was fairly evident that there were no overwhelmingly successful examples of interdisciplinary research, let the researchers make one of their first orders of business be that of developing a sound pattern of interdisciplinary and interinstitutional research, calling in whatever experts may be available to help achieve an effective model. (2) Let the universities

involved assume that their responsibility does not end with research and that they should be the total change agent in bringing other resources to bear on the solution of the problems that have been researched. (3) In future research efforts let there be greater community involvement in identifying the problems and in carrying them out, so that there will be the necessary motivation developed in the people of the area to implement the recommended solutions. It is believed that in many cases, local people can be used in subprofessional roles to carry out the research designed. If local personnel are so employed they will be in a position to better implement the findings of research by helping to bring about the needed change in their respective community attitudes and practices. (4) Wherever possible, when local people are involved, insure that they receive a direct benefit from such participation, such as acquiring the competency to cope with problems with minimum outside help, when such problems arise in the future.

SUMMARY

This chapter has served to orient the reader to the Proceedings of the conference. The stated purpose of the conclave was to provide the participants an opportunity to exchange ideas on urgent and relevant problems which might relieve poverty and enhance development of the Appalachian Region through effective employment of research and action.

The highlights will now be developed in the pages to follow from the entire deliberations and the data derived therefrom.

CHAPTER TWO

THE IMPORTANCE OF INTERINSTITUTIONAL COOPERATION — WITH CAUTIONS AND A CHALLENGE

Warren W. Brandt

It seems that we are caught up in a day of catch phrases. For the past few years it has been reported that if you could manage to include the word "interdisciplinary," you doubled your chances of getting a grant from one of the agencies. And so there have been all sorts of projects dreamed up under the guise of being interdisciplinary because it was thought that it was a helpful phrase.

Interinstitutional cooperation, I feel, falls in the same category, and there is a bit of lore that if you manage to say that you have some interinstitutional cooperation in a program, the program is obviously better. We have developed a number of programs around the country which are sold as interinstitutional cooperation, but which in fact involve very little of such. So I think that we need to look at interinstitutional cooperation more closely and see what it is we are talking about.

There certainly are many examples of interinstitutional activity. Let me mention a few of these so we may have some reminders of what we might be talking about. One example of such an organization can be found in this region in the Oak Ridge Associated Universities, where a large number of universities come together in an operating body for a particular purpose. Another example is seen at Argonne, where the Argonne Research Associates bring faculty members together from a number of small institutions to Argonne for various functions. There are many other such operations around the country. Most of us are familiar with the cooperation among the Claremont Colleges, which is not only cooperation through good will and practice but is actually built into some of their charters. The cooperative agreements among the several women's colleges in Massachusetts are quite well known.

Another example that we might use would be a variety of cooperative computer activities, where we find a major computer at one installation with several affiliated groups working off it. A good example of this type of arrangement would be the Research Triangle, with one large centralized computer facility serving Duke, University of North Carolina at Raleigh and University of North Carolina at Chapel Hill. This

is an excellent example of interinstitutional cooperation. If we get into other areas we have vehicles such as Educom, which are directed towards very broad natural goals of cooperation. There are several other examples in this particular category.

The accrediting associations are very fine examples of interinstitutional cooperation, for that is exactly what they are. They are sponsored by the institutions they represent. The institutions set them up to provide their own accreditation. The same might be said for the regional education laboratories which have come into being fairly recently; these have been set up by the federal government and represent one approach to interinstitutional cooperation. Educational television is full of examples of interinstitutional cooperation. Some of these examples exist for more than to satisfy a particular catchy phrase. There obviously is a sound basis for interinstitutional activities.

As we look at many of the different examples we find that some work well, while some work poorly. Some examples of interinstitutional cooperation are really quite significant, and others seem to involve such infinitesimal interaction between institutions that we wonder if their impact has any significance at all.

As I have tried to categorize these examples, it seemed to me that they fall into at least two broad categories: the organizations which have a superstructure and those which do not. Those that do not have a superstructure involve pretty much a straight man-to-man type of cooperation. Two institutions sit down and decide in some manner or another to permit students to go from one institution's class to another, or other examples of that type. This type of a working relation is tough to set up. It is tough primarily because the parties involved go into the arrangement with the fear that they are going to lose their shirt; each fears that it is going to put everything into it and the other party or parties will get all the benefit. Perhaps not everybody thinks that way, but I have been in enough meetings and spent enough hours trying to work on this type of thing, that I believe this is a fairly common phenomenon. The fear that the cooperation is not going to come out even is real and such fear makes the cooperation difficult. Such programs or working relations can succeed, but they are difficult.

In my opinion the system in which you have an organizational superstructure of some sort is much more effective. Basically, its administration is more sound. If you put a superstructure on a cooperative arrangement, you have a situation in which all of the cooperating members are feeding into one entity which transcends each of them to a

degree. They all are providing resources. They are all giving up a little bit of their autonomy, but they feel comfortable because that loss of autonomy is going into the superstructure and they can see that everyone else is being treated the same. An institution can go into this type of an organization with a much more comfortable approach toward inter-institutional cooperation.

There is another element to the superstructure which I think is relevant. That is, when you establish an organizational superstructure, you hire an executive director and say to that man, "This is your baby." He looks at the success of the cooperation as a mark of his success or failure, and thus you have given to this individual not only some authority to achieve an objective, but a very real incentive to make the cooperation work. In many situations that may be a most significant factor in the success of interinstitutional cooperation.

Why do we need to bother? Why fuss with interinstitutional cooperation? Why mess with it at all? The mechanics involved in such development obviously are difficult to achieve. Interinstitutional cooperation sometimes does not work. Why bother?

It seems our reason for bothering, the prime motivation, particularly for a conference such as this, is the size of the problem. When we get problems which are just too big for one institution or one federal agency to handle effectively, we must have some mechanism for providing cooperation in order to cope with them effectively. A problem which crosses state borders, can give public institutions real difficulties when alone they attempt to handle geographical regions beyond their respective areas of jurisdiction. For one university to take on a large-scale program is extremely difficult for many reasons: this large-scale program bleeds the university of faculty resources and it bleeds the institution of financial resources. No institution has unlimited faculty resources. You cannot take on a large project and expect to staff it with the weak people. You must staff it with strong people. Most institutions cannot go to their faculty and pick large numbers of strong faculty for extra institutional programs without seriously decreasing the effectiveness of internal and routine responsibilities. It also is true that no matter what type of grant funds you are getting, particularly in terms of federal grants, there is a cost to administer as well as to execute the program. Your institutional resources, needed seriously enough for normal operations, are drained when such a project is added to the jobs to be done. So you must weigh putting that limited money into this project rather than putting it into faculty to teach classes or

facilities for holding classes. This "drain" phenomenon makes it difficult for one institution to reach out and take a large scale problem.

This so-called drain problem, I think, is best exemplified in the foreign programs. The foreign program probably serves as one of the best examples of how *not* to approach a problem as large as Appalachia. In most cases these projects have been given to a single institution. The institutions have had to seriously deplete their own resources or they have had to go beg some form of assistance from other institutions in order to accomplish the assigned mission. And when they take from other institutions, the latter are deprived of needed faculty and often receive no credit for their contribution. We are providing strong faculty under such arrangements at the present time. I tend to resent our staffing a program for which another institution will receive the credit — maybe this is why interinstitutional cooperation is difficult. On the other hand, I do not think that I am completely unique in this reaction. If there were a cooperative project, where it was recognized that we were all contributing faculty resources to man this project, I could be quite enthusiastic about it. I believe the people involved would be more enthusiastic. You have all been involved in or know of projects of this sort.

Certainly the Appalachian problem, taken as a whole, is a king-size problem. It is a problem made to order for cooperation among a large number of institutions. It is a situation that is really crying out for this type of approach. It seems to me the importance of trying to achieve interinstitutional cooperation in the Appalachian program is of such prime "A-number-1" total significance that we cannot do it without it.

If the problems of Appalachia are going to be attacked effectively, if they are going to be handled effectively, they are going to have to be met through interinstitutional cooperation. We cannot all go off in our own particular directions, shooting a research man out in this area, and another research man in that area, and looking at this and looking at that, with little coordination.

Dr. Schnitzer of our faculty published a paper a year or two ago on transporting people out of Appalachia and training them for new jobs. He discovered that it is all well and good to do this, but if you go back and check later, the former trainees are mostly back in Appalachia again where they originally started. This behavior must say something to some of the groups that are involved as to the problems of retraining or relocating personnel.

Tom Cook of our counseling staff has a paper in the Rehabilitation Bulletin which deals with the psychosociological factors of trying to

rehabilitate the man who, for psychological reasons, has picked upon a slim excuse in order to become a non-worker. This man's environment, particularly his work environment, has created this psychological response in him and it makes the prospects of his rehabilitation practically zero.

There must be a lot of interchange of this type of research information. There must be a lot of cooperation among the people who are working in the Appalachian area. The challenge is not going to be met without interinstitutional cooperation. The success that we have will be related to how effectively we cooperate. The skills that are needed — the manpower that is needed — are too great for any one group to handle. The Appalachian problems are too large for one federal agency. The organization which could emerge from your deliberations here and goes at these problems should be able to reach out to many federal agencies. One federal agency frequently has the same sort of problem that the universities have in cooperating with another or getting another to commit its funds to support it. The agency we may be devising may be one which can bring all kinds of institutions together to attack Appalachia problems. It ought to be able to go to all the federal agencies with equal possibility of success of getting support. It ought to be able to go to the foundations for support. It ought to be able to go to the universities and find the universities willing and eager to participate in the cooperative venture. It is going to take a unique and effective type of organization to achieve such ambitious goals, and I think that it must incorporate a particular superstructure.

Let me discuss a few random thoughts for your consideration in passing. It seems to me that we must be cautious. We can recite a lot of the problems of setting up interinstitutional cooperation. I am not at all sure that we are really familiar with the problems in Appalachia. There is a sneaking suspicion that sometimes we have taken well worn problems from our own environment and ascribed them to Appalachia. We may have decided for Appalachia what its problems are. That is why I am very pleased that there are people here in the conference from the region itself who will be able to provide us with an informal evaluation of our discussions and conclusions. I am sometimes afraid, and we have this problem with Appalachia, that we are so intent on doing something that we do not take time to really go in and sit down with Appalachia. It may take quite a bit of time to find what Appalachia sees its problems to be. And they may be quite different from the problems we see.

Philosophically, can we assume that everyone must subscribe to the same set of values of living throughout the entire country? There may

be groups that have a different set of values which are just as acceptable. We do not all have to fit the same mold.

There are some other questions that concern me. One of these is the tremendously non-homogeneous nature of the problem with which we are dealing. You may go into one community and the problems may adjust themselves, yet another community a relatively short distance away may perceive its own problems very differently. And if we try to take Appalachia as a region or even break it down into sections, we are going to miss the point in too many different areas.

I am concerned about how much statistics will be misread and how many will be misled by them. I am struck by the statistic which says that in 1960 only 32 percent of the age group over 25 had finished high school whereas in the nation the average was 42 percent. That is a depressed figure. But what does it mean? And more important, does it mean anything? Or does this statistic merely provide an observation after the fact? I would guess that if we went back we could probably find progressive areas of the country which, in very recent past years, had only 32 percent, (as Appalachia is reported to have had) of its population over 25 finishing high school. This datum may have no direct relevance whatsoever for the Appalachian problem. We can be misled by figures very easily. We might make some poor observations if we do not go out in the midst of Appalachia and try to analyze very closely and carefully what are the problems and what are merely observations after the fact.

I cannot help but worry about the known and proven debilitating aspects of welfare. We have proven this around the country time and time again. The ghettos become one of the prime examples of today's age. Where we have moved in with large sums of money over a period of time, much of it in welfare, we have found that money alone has not yet solved one problem. There must be a better approach. We may have to take a completely different approach.

When you go into Appalachia and find the out-of-work coal miner who does not want to spend the six weeks being retrained for a new job that will not pay him as much as he can get from welfare, we may be our own problem for pressing toward assisting him in a way unamenable to his wishes. The literature of Appalachia and other regions is full of the "cycle of poverty," but I have not seen many people espousing the subject which is obviously something they find difficult to discuss in public. That is, is it reasonable to expect that the people who are providing the support for a family can require that there be

no further additions to that family and take medical steps to ensure that this will be the case. We may need to have to take such steps if we are going to break this so-called "cycle of poverty." It would seem to me that there is a lot of relevant evidence that needs to be considered before we rush in and make all the same mistakes over again in Appalachia.

You have a tremendous challenge at this conference. The opportunity to do something is terrific. I also think that our chances for achieving something of significance are increased immeasurably if we do not try to take the whole problem and assume that by Saturday noon we can have Appalachia straightened out. We have the opportunity to do something significant if we will be content to make some small but definite progress and not stand on our own prejudices for awhile.

Let us assume that I was in an institution — academic, industrial, government — and I went out and hired the talent that is represented here, and brought them in and said "All right, talent, sit down for three days and come up with some significant answers for me." I think that anyone who had hired such a group as is present here, would expect this terrific brain power to make some very significant progress in three days. Keep that in mind during the next few days. It is my hope that your deliberations will prove to be interesting, exciting, and above all, productive.

Part II

THE FIRST MANDATE

The national intent regarding poverty is discussed in this Part: Mr. Elmer J. Moore, the author, describes the way the Office of Economic Opportunity operates—how it addresses itself to research and planning. The challenge presented is whether the American people, an affluent society, can succeed in resolving the problems of poverty in Appalachia or elsewhere in the country.

CHAPTER THREE

A CRITICAL LOOK AT POVERTY

Elmer J. Moore

Since the turn of the century the United States has become one of the two most powerful and technologically advanced nations in the world. The wealth of the people is at a level unprecedented in the history of civilization.

One of the startling surprises of the nineteen sixties, however, has been the discovery of large pockets of extreme poverty among the population. This paradox has developed despite America's affluence and its apparent commitment to the fundamental doctrine of equal opportunity for all. Since the discovery, many studies have detailed the historicity, scope, and nature of poverty. These findings have indicated that the legacy of deprivation appears to be characterized by a circular force of poverty, lack of education, underemployment, disfranchisement, poor health, and poverty again. No ethnic group has completely escaped the devastation of this legacy. On the subject, "A Critical Look at Poverty," at the outset I make one general assertion: Americans often seem to operate on the basis of confident optimism, fused with a kind of pragmatic idealism. The philosophy underpinning American political and economic history tends to instill the popular notion that all social and economic problems — however grave or deeply entrenched — can be solved. All Americans need to do is set their collective intelligence to the task.

Applying this glibly accepted notion to the problem of poverty simply violates reality. First of all, in an economic sense, contemporary poverty is of a different species than the familiar turn-of-century variety. The dynamics of the marketplace are drastically changed. Operative solutions that succeeded in the past fail to penetrate the current problem. Secondly, poverty can no longer be justifiably attributed solely to personal failure, lack of ambition, or moral degradation. The permanence of poverty in the United States stems in part from the heterogeneity of its social and economic location. Of course you recognize the familiar parameters of the social groups labeled as poor. But, you will be surprised at the disparity and complexity of variables which operate rigidly to produce, and to enforce, the poverty status of these groups. In short, poverty becomes a stubborn and grasping human condition with limited exits.

If the problem of poverty in the United States is responsive or unresponsive to immediate or short range solution, then the public is entitled to know the "why" and "wherefore." As we move closer and closer to human beings, to human life, and to its goals, we find that we are dealing progressively with more and more difficult problems.

The analysts whose discipline was created to integrate World War II technology into the military system, and the engineers who built military and space hardware were challenged last year by the Vice President "to become more involved in solving our problems here on earth — to make our society a better place to live." Such collective intelligence is brought to bear on problems through research and planning activities in the public and private sectors. Such activities provide the focus for a critical look at poverty.

For example, the purposes of research and planning activities in the Office of Economic Opportunity are not unlike the purposes of such activities undertaken in private industry. Industry, whenever it becomes large, develops a very sizable social research staff with multi-purposes: to determine the market potentials for the current and future products; to estimate future trends in company sales and profits, so as to guide company fiscal policy; to measure national economic trends so to guide company procurement and production policy; to advise operations and sales divisions when effort seems not to be applied in the right amount or proper time in local areas.

That is what our Office of Research, Plans, Programs and Evaluation does for the Office of Economic Opportunity, except that whereas industry views 10 percent of sales as too little for market research, government, by long-established habit, assumes this is too much. So we are a relatively small staff office concentrating our efforts on the biggest national problems of poverty. We propose *large* solutions to these problems.

We leave the problem and solution details to others in operating units, simply because we must. We are aware that these details are often too large to be handled by a small but enthusiastic operating staff. Experienced staff personnel are in short supply, but, if we keep asking for more uniform, better-quality, more usable data, eventually we shall get it, and those actually disbursing the scarce dollars will have been trained in what we need — evaluations that tell how to get the most help to the poor for the least dollar outlays.

Thus, the research activities of the Office of Research, Plans, Programs and Evaluation include: the identification and definition of

poverty in the U. S.: the monitoring of significant research conducted by governmental, academic and other institutions related to the problems of poverty and efforts made toward its elimination; the review and coordination of research proposals of program constituents in OEO and other agencies with delegated programs; and, the development and implementation of an overall research program to provide basic information needed to implement the anti-poverty program. The office also conducts some original research in specific problem areas.

OEO RESEARCH AND EVALUATION

The total OEO research and evaluation effort falls into three areas: (1) short-term projects designed to yield information to improve program design or administration; (2) evaluation of on-going programs where special emphasis is placed on follow-up studies on program participants at intervals of six months to one year after they leave our programs, and where the purpose is to answer the basic cost-benefit questions; and (3) basic research on the causes of poverty.

In dollar terms, our primary efforts have been on short-term projects. As one example, in FY 1966, we found 59 Head Start research projects totaling \$2,100,000. This was in addition to \$195 million for the regular Head Start Program. In the summer of 1965, and again in 1966, OEO collected, on a sample basis, data on parent participation, worker attitudes, family characteristics, pre- and post-testing of cognitive and behavioral gains and medical histories. In the case of the 1965 Summer Head Start program — the only one on which we have completed some evaluation — there is little doubt that the favorable results are substantial. Results measured by formal testing and other evidence show substantial gains in the relatively short time period. These overall results are supplemented by many private studies made of Head Start children.

We have also evaluated our other programs. A study by Kirschner Associates, for example, led to decisions we made early in FY 1966, to revise upward the income criteria for the Small Business Loan program. The study made clear at that time that the program was not going, and could not go, just to people who were poor, but went mainly to people who hired local poor. Subsequent analysis indicated that the program was workable only when directed to the ghettoized businessman who, though even above the poverty line, had difficulty obtaining credit and insurance.

As an in-house effort, we conducted a sample of income gains for rural loan recipients. This study indicated that the \$2,500 loan limit was

probably too small in many cases. Therefore, we requested, and Congress approved, a \$3,500 loan limit. (We have continuing concerns about this program and its possible effect of tying people to the land when they may be better off moving to an urban area for a job. We are continuing to investigate it from that standpoint.)

In the Community Action Program, whenever a particular component gains wide acceptance, we launch a short-term research project to give us feedback information. This was done on Small Business Development Centers as previously mentioned, and has also been completed on activities such as the nonprofessional's role in Community Action, Foster Grandparents, Indian projects, and on state technical assistance agencies.

This list is not complete. It gives just a few activities for which we have final reports. The reports indicate, for example, that the Foster Grandparents program was beneficial to both the senior citizens and to the children; that the whole concept of utilizing the poor in new sub-professional roles is certainly not as easy to apply as we may have earlier thought; and that some state technical assistance agencies are not performing too well. We are taking steps to correct the last.

In the second area listed — that of follow-up studies on program participants — we are lacking in definitive knowledge. The basic reason for this is that until recently we have had few graduates to followup. Currently, however, we have a number of studies underway. Some of the research work in Head Start, for example, is aimed directly at this longer-term benefit. Perhaps, if the early research returns prove correct, more effective efforts must be made in the public school system if the investment in Head Start is to pay off.

Another example of the work underway in this area is what we call comprehensive evaluation of community action programs. We have funded several evaluations, primarily with universities, for community action programs operating in different urban and rural settings. We are examining what has happened to the people in the specific cities as a result of all the anti-poverty programs in operation. The studies will analyze the cause-and-effect relationships between different components of the anti-poverty programs and the relevant economic and social variables such as income, unemployment, school dropout rates, delinquency, etc.

In the third area — basic research on poverty — most of our research funds are going to two places, with smaller amounts to several contractors and grantees.

A major basic research activity of RPP&E is the Survey of Economic Opportunity. Tape files of two large national field surveys, one for 1966 and one for 1967, are being developed. The samples for these two surveys were designed to produce estimates with about the same sample variability for white, nonwhite and poverty populations, including the questions of low-income persistency among the poor.

The best example of encouraging original research is our grant to the University of Wisconsin which has set up the Institute for Research on Poverty (IRP). The research underway at IRP cuts across the social sciences, involving projects in economics, sociology, law, education and political science. Among the more interesting economic studies is an investigation of those economic aspects of poverty related to technological change: interregional shifts in production and the consequent change in the demand for labor by location, industry and occupational or skill category.

Several other projects which illustrate the full range of the work underway are a study of the influence of poverty on family living characteristics in an urban metropolitan area; an anthropological study of the Mexican and Puerto Rican enclaves of poverty in Milwaukee; and a sociological-historical look at the use of education in solving the problem of poverty in terms of a comparison between rural and urban experiences in the United States.

RPP&E acts as a liaison between the Institute for Research on Poverty of the University of Wisconsin and OEO. It is expected that the Institute's efforts will be directed mainly to basic research: long-range studies of poverty which up to now have been practically non-existent. The Institute will provide a focal point for the study of poverty issues by economists, sociologists, psychologists, social workers, educators, legal scholars, medical doctors, home economists, political scientists, urban planners and other professionals.

All in all, we have a large number of research and evaluation projects directed toward the study of poverty problems. We are not resting on these efforts. We need more definitive information. When one tries to find out the effectiveness of other anti-poverty efforts of the federal government, it is amazing how little is really known. For many grant-in-aid programs, the federal government is not given the authority to look into state and local program composition or effectiveness. This is not true in our case. Our research is aimed at making sure that every anti-poverty dollar is buying the biggest payback for the poor and for the taxpayers.

Perhaps member participants in this Regional Conference have the interest and the capability to help us become even more effective and efficient in our research endeavor. Indeed, we hope so. On that note, let us turn our attention to planning.

PLANNING

RPP&E also has the responsibility for developing a total program to combat poverty. It has developed long and short-range planning alternatives for the elimination of poverty and has translated these alternatives into an approved multi-year program oriented toward the economic and social objectives of the national anti-poverty program. It also works on the development and implementation of cost-benefit tests and their application to the program structure and costing system in order to evaluate basic programming assumptions and alternatives.

OEO was one of the first civilian agencies to implement the new techniques of program planning. Systems analysis, first used in the federal government by the Department of Defense under the nomenclature Programming, Planning, Budgeting System (PPBS), naturally has helped us to visualize our programs more clearly in relation to our defined goals. It has helped us to perceive the resulting output of our programs as well as the required inputs. The latter have been the traditional means of "planning" and "evaluating" government programs in the past. The PPB system consists of 5 interrelated processes: (1) *planning*, which establishes the total anti-poverty requirements to achieve the national goal and sets as objectives that portion of the requirements to be attained during a certain time period; (2) *programming*, which translates the objectives into actions and develops a statement of resources needed to support the programmed actions; (3) *budgeting*, which determines the financial resources needed and determines their allocation; (4) *execution*, under which authorized resources are expended to achieve the programmed objectives and by which changes to approved operating programs are proposed, evaluated and authorized; and (5) *evaluation*, through which accomplishments are reviewed and analyzed.

The big breakthrough in PPBS was to shift from planning in terms of programs (no matter how heterogeneous) to planning in terms of functional categories. We have four major categories:

Employment category. The importance of jobs in an opportunity program is established by definition. Opportunity means an assurance of self support which in turn means employment in a useful and

gainful job at non-poverty wages. Job programs are important because they provide immediate, concrete and symbolic results. In the short-run, jobs can take more people and families out of poverty than any other single proposed means. For the head of a family, a job is an essential ingredient of economic security and self respect—key elements in bringing about changes in the underlying causes of poverty. In the long run jobs are vital to the permanent success of all our programs. If the opportunity is our primary objective, then in the American economy, a job is the name of the game.

Individual improvement category. Programs of individual improvement are aimed at a major root cause of poverty. Teenagers walk the streets or work at dead-end jobs for lack of education. Last year's teenagers become today's poor adults—unemployed or working at dead-end jobs. Just as jobs are necessary to the success of the War Against Poverty, vastly improved educational opportunities are necessary to assure that providing a job currently is not just a temporary stop gap. Only if today's youth can be saved from the educational deficiencies of the past can they be flexible enough to grow with an economy whose jobs require more and more technological and managerial sophistication. Through programs of adult education, deficiencies of the past can be remedied. Also, educational incentives for children can be reinforced in the home by interested parents.

Community support category. Community support programs are directed toward the elimination of the poverty environment. We have worked on a whole set of environment-changing programs aimed at eliminating the unpleasant accoutrements of poverty which act as both cause and symptoms to the vicious cycle of inter-generational poverty—inadequate housing, the things that destroy incentives and breed the second and third generations of welfare recipients. Legal services—and many of the services we take for granted—have not until now been available to poor people.

Income maintenance. This is for those who either cannot be lifted out of poverty by their own efforts or need some support while they are preparing to become self supporting. Our programs stress economic growth and opportunity programs to maximize the anti-poverty effect of that growth, but for those who do not benefit from such an effort income maintenance is clearly needed.

Traditional assistance programs fail in two ways: the maintenance payments are grossly inadequate to support a family except in abject poverty; they offer no incentives for people to rise above their pro-

blems and become self-supporting. (Contrary to much popular opinion inadequate payments are not an incentive to become self-supporting. In fact, such payments perpetuate the poverty environment in which respect for self-support is lost.) An adequate income maintenance program can provide the opportunity to a family head to train for a decent job, instead of grabbing the first available job in order to feed his family, and put him on the road to self-support.

This, then, is the structure of our analytical system, the organization of problems and programs in a way which enables us to critically examine inputs and outputs, alternatives and magnitudes. This program structure has served as a basic framework for the planning-programming and budgeting processes, for relating these functions, for providing the Director of OEO and his staff with information needed for integrated decision-making and the execution of the managerial function, and for comparison of alternative programs with respect to both their costs and their benefits.

If we are budgeted below the maximum levels for proposed programs we are able to suggest an ordering of cuts based on cost-effectiveness principles and those programs least cost-effective in speeding victory over poverty are dropped first.

A systems analysis of this type also enables us to consider inputs in terms of effort as well as money. Let me explain briefly why this is significant. Whether we have the money to improve public health services is not the crucial issue if no matter how much money is available, we do not have the doctors and nurses to expand health programs. Thus, we find inputs and outputs are interrelated. When we find a shortage of labor to perform community services and at the same time a shortage of jobs at the sub-professional level, we see an opportunity to accomplish our goals by a program that will use unemployed and underemployed poor in public service jobs. For example, we utilize the poor in our community action programs to perform services that would not otherwise be available to the neighborhood.

An initial eagerness to end poverty in the nation produced, perhaps, an atmosphere of haste, and crash programs, lean in vitally needed prior structure and control, and long in innovation. The result of this approach was some Congressional hostility and caution which soon tended to undermine the human value of the poverty effort. Locally, many administrators sought to postpone responding to the protests of the poor while enhancing the power of local political establishments.

If we are to surmount a sense of futility, a number of proposals must be effectively and affirmatively implemented: (1) the poor must

gain more intensive involvement in the programs designed to help them; (2) administrators must assist in the development of the ability of the poor to become their own decision-makers; and (3) above all, the general public must commit itself to waging a meaningful war on poverty by reordering the nation's priorities.

Finally, when PPBS is undergirded by appropriate research output, decision-makers can act rationally. Relevant programs can be planned, proposed and implemented. Then, we can truly say that OEO is running the classical program in the nation in terms of the democratic process.

Part III

ONGOING RESEARCH

This part, the longest of the report, contains detailed reports of research submitted to the Conference Committee. All such reports are included. Abstracts of ongoing as well as completed reports, used in the discussion sessions, have been briefed and are found in Appendix II.

This section also contains "position papers" and reports which reflect the views and research activities of an interdisciplinary or interinstitutional nature being carried on by various institutions in the region, related to poverty and development in Appalachia.

In essence, this part contains the subject matter around which the conference was built. In it will be found suggestions for needed future action, including action needed for setting up some form of interinstitutional cooperation on research and development in Appalachia.

CHAPTER FOUR

SOME REPORTS OF ONGOING RESEARCH IN APPALACHIA

All researchers invited to the conference were asked to bring brief reports on research being done in their institutions. Two types of detailed reports were submitted: (A) general statements relating to research by various departments in the institution and (B) detailed reports of special research being carried on.

A

GENERAL INSTITUTIONAL REPORTS

Here are statements on interdisciplinary research being carried out related to poverty and development; some give results and some report the nature of the research. The statements are not classified, but are presented in alphabetical order by state: Georgia, Kentucky, Ohio, A & T University of North Carolina, Pennsylvania (two reports), Tennessee, and West Virginia (two reports). Reports on interdisciplinary and interinstitutional research are found in Chapters 5 and 6.

1. RESEARCH AT THE UNIVERSITY OF GEORGIA ON APPALACHIAN PROBLEMS AND RESEARCH NEEDS FOR THE AREA

James O. Wise, University of Georgia

Dr. Albert L. Danielson has a project concerned with alternative systems of dealing with low income in the U. S. This project is concerned with analyzing income distribution policies, such as the negative income tax, as a method of eliminating poverty. Although the project is general in scope it certainly has implications for Appalachian poor people.

Dr. Charlie Floyd in Finance is studying employment and income in the three areas of Georgia by major SIC classifications. This study will expand our data on employment and income beyond what is currently available. Results thus far show that average income per worker in Georgia and other southeastern states is low compared to that of other areas of the U. S., this being true because of low wages and the fact that low-wage industries are concentrated in the area.

Dr. Vernon Hurst and staff members of the Department of Geography have recently initiated a project whose objective is to inventory all of

the minerals of economic value in Northwest Georgia. The area includes several of Georgia's Appalachian counties.

The Institute of Community and Area Development (ICAD) under the direction of Dr. J. W. Fanning, Vice-President of Services, has a number of projects under way. The Institute attempts to bring to bear the total resources of the University on a particular problem and consequently many of the projects are joint efforts between the Institute and the various departments and could be listed under departmental efforts. In addition to the research projects, which will be discussed, the Institute also performs many service functions.

Sanders, Keeling, Buchanan, Hein and Wischmann have a study concerned with tourism development in the Georgia Mountains. This study is based on the premise that the area has not taken full advantage of its great natural beauty and strategic location as a means of attracting recreation and vacation travelers. The purpose of the study is to assist the area in developing its full potential, at the same time recognizing that this cannot be done at the expense of other segments of the economy. Findings of this study indicate that tourism development would broaden the economic base and provide additional stability for the area residents. One phase of the study describes the opportunities for tourism development on a county basis.

Mr. George James and other members of the Institute of Government have conducted studies on local governments in the Appalachian area of Georgia. These studies were concerned with organization and management, ordinances, taxation programs, community investment programs, zoning, use of federal programs and city and county consolidation. In a number of cases these studies have resulted in new city charters' being implemented.

Proposed work by James includes establishing a technical assistance team in public administration, which would be concerned with service and research projects in 17 counties and 44 cities in the Appalachian area. Another proposal is concerned with analyzing and preparing new charters for the cities in the area.

Other work in the area by ICAD and the cooperating departments include population analysis and projections, inventories of forestry, agriculture and non-agricultural resources.

Dr. Hugh Masters and other staff members of the Georgia Center for Continuing Education are currently concerned with the creation of an outdoor recreation experiment station at Helen, Georgia. The

approach would be similar to that of an agricultural experiment station and would be related through contractual relationships with the University of Georgia. Initially the project would involve four areas of research and demonstration: ecological research, managerial services, motivational interest, and site development.

Another area of research, in the School of Social Work, is Dr. Norman A. Polansky's project which is entitled "The Apathy-Futility Syndrome in Child Neglect." Dr. Polansky describes his research as a program of study rather than a specific project. Thus the objectives are general in nature. The objectives are (1) to investigate the significance of the apathy-futility syndrome in child neglect; and (2) to investigate the methods of bringing about a change in the syndrome through social case work. Previous research by Polansky indicated that middle-class children in one of the Appalachian counties are more accessible verbally than lower-class children in the same area. On first thought it may appear that this project is not directly related to the poverty problem. However, economic development to a large degree depends upon the values and motivation of the people, thus any new knowledge regarding ways of changing the apathy-futility syndrome should have long-run implications for economic growth.

In the field of agriculture and particularly agricultural economics, Wise is just completing a study on the opportunities for marketing and agribusiness facilities in the Upper Hiwassee watershed area in Georgia and North Carolina. The objectives of this study were: (1) to determine the facilities, employment, and volume of business and income; (2) to project the conditions likely to face agriculture in 1970 and 1975 with emphasis on human and land resources, prices, and the competitive position of the area; (3) to estimate the production of the major commodities that are feasible for the area; and (4) to identify opportunities for development of new or expanded agribusiness facilities.

Results thus far show that vegetable and other horticultural specialties (especially Christmas trees) offer a means of significantly increasing incomes to individual farmers and to the area economy as a whole. In addition, it was found that the supply of heavy fowl in the area was more than adequate to support a fowl processing plant.

Another project in Agricultural Economics, which is currently inactive due to lack of funds, is one concerned with Human and Natural Resource Development in the Appalachian Region of Georgia. The specific objectives of this study were: (1) to determine the quantities and qualities of resources in a ten-county area and their current uses,

(2) to identify and evaluate alternatives for the use of resources in the area and (3) to determine strategies for using findings to stimulate decision makers to actions favorable to economic development.

Results of this study are limited to inventories of agriculture, forest, agribusiness and non-farm business resources. Thus far only the forest resource inventories have been published.

Other studies in agriculture in the area are too numerous to mention in detail. A number of feasibility studies have implications for the region. Several studies are currently under way in the fields of animal science, plant science and engineering. These studies will enable us to describe and improve biological and physical relationships which are important for economic efficiency and growth.

Further research needs revolve about economic growth: economic growth and its causes. By definition, economic growth is a rise in real gross national product per capita over the long run, with no drastic effects on the relative income distribution. In very simple terms, in a developed nation or area, economic growth results from two causes or a combination of these causes. First, an increase in the *quantity* of resources, that is, an increase in the quantity of land, labor, private and public capital and entrepreneurship; second, an increase in the *quality* of the resources just named. This requires improving labor skills and entrepreneurial skills, and increasing the output per unit of land and capital.

For the underdeveloped nation or area a third factor, the *effort to engage in economic activity*, must be added: the effort to engage in such things as general experimentation, risk taking, occupational or geographical mobility, specialization and acquisition of new skills or knowledge. The developed area has no major problem of this nature.

The research needs for implementation of the above concepts are tremendous but not outside the practical realm. The first need is to gather current information on the resource situation in the area. What are the quantities, qualities, and uses of the existing resources? More specifically we are asking how much labor is available in the area and what are the skills and how is the labor employed. The same questions apply to the other basic resource groups, of course. The above discussion indicates that Georgia has allocated much of its research effort to this area, but by no means has the effort been exhaustive.

Another major research effort that is necessary for economic growth to take place is that concerned with identifying feasible alternatives

for use of the available resources. Included in this category is the estimation of costs and returns expected to result from the various alternatives. This effort includes not only the identification of existing alternatives, but the identification of potentials for resource employment. Questions such as these are involved: should labor continue in agriculture or shift to non-farm opportunities; should additional resources be allocated to textiles or to electronics; what will these alternatives contribute to individual and regional income? Although Georgia has allocated some research resources to this effort, this is an area that has largely been neglected. Much of our work in this area and particularly in agriculture has dealt with alternative practices: the emphasis on the level of fertilizer we should use for our crops, or the level of feed we should use for our livestock. Such research has resulted in increased economic efficiency at the farm level, and should not be discontinued, but a more productive effort would be to specify the long run alternatives and optimum use for the major resource categories for the farm and non-farm sectors of the region.

Another area of needed research which is closely related to the above area is that of how to improve the quality of existing resources; this is the area of research that promises to maximize long run rewards in terms of contributions to the growth process and human improvement. Some evidence exists to support this statement. For example, it has been proved that the area with the most progressive skilled labor force, and the most progressive entrepreneurs has developed faster even though other areas have had a superior natural resource base. In other words the skills of the people are more important than the quantities of resources. Given that this proposition is valid, we should be concerned with a number of research questions. What specific labor skills should be developed, how they can be developed, what entrepreneurial skills are needed and how can they be developed, what specific educational and training programs are needed, what is needed in the way of public capital, and what are the costs and returns to individuals and to the region from such activities? How can we stimulate the development of new technology? What institutions and procedures are needed in order to implement desirable changes?

Closely related to the above questions and to the third factor for economic growth, the following research needs are suggested. First, what are the values of the region's people with respect to economic activity? Do they place low values on economic goods relative to the effort required to obtain them? If so why? What are their attitudes regarding risk-taking, making productive investments, changing jobs and

geographical mobility? It has been shown that 17 percent of the farm families in the country would not leave farming for nonfarm opportunities regardless of the income possibilities. We need to know why this is true. What institutions, habits, etc., are responsible for attitudes not favorable to economic activity and how can they be changed?

With one or two possible exceptions there is no work currently being conducted on these problems. One such exception is Dr. Polansky's work on the apathy-futility syndrome, but even in this case there is no direct relation to participation in economic activity. Dr. Miller's work (reported by Dr. H. C. Cooper) is also relevant but the area seems just to have been scratched. This type of research is very important to the improvement of human life in an area promising to give high long-run returns to additional research resources.

2. INTRADEPARTMENTAL STUDIES ON POVERTY AT THE UNIVERSITY OF KENTUCKY

T. R. Ford, University of Kentucky

The following studies were reported in a survey of 20 departments considered most likely to have research projects related to Appalachia.

Agricultural Economics — Research currently conducted or recently completed includes: (1) The causes and extent of return migration to Appalachian Kentucky. (2) Consumption patterns of Work Experience and Training Program participants. (3) A comparative study of costs and benefits of alternative qualities, levels and curricula of education. (4) The monetary costs of geographic isolation.

Education — The Bureau of School Service has made surveys of public school facilities in a number of mountain counties in recent years. Other studies have dealt with the needs and resources for vocational rehabilitation and the social and attitudinal characteristics of vocational rehabilitation referrals. A study of the impact of Title I funds upon the operation of rural school systems in economically depressed areas was recently completed.

Geology — The Kentucky Geological Survey is involved in a number of studies that have relevance for the economic development of Appalachia. These include areal geological mapping, investigations of mineral commodities in the state, and inventories of surface and underground water supplies.

History — A doctoral dissertation on unionization in the Harlan coal fields in the 1930's is scheduled for early completion.

Home Economics — The School of Home Economics is participating in a Regional Experiment Station Project (SM-35) concerned with factors affecting the purchase and utilization of foods. One of the urban centers selected for study is Ashland, Kentucky.

Library Science — An annotated bibliography of libraries working with disadvantaged groups has been completed recently.

Microbiology — A study of the effects of strip mining on the ecology of micro-organisms in a mountain stream. Microbes are responsible for typical acidity of fresh water affected by strip-mining operations and may hold the key to acid neutralization or prevention.

Psychiatry — Clinical research is being conducted at a mountain clinic maintained by the Department, supported by an NIMH Continuing Education Grant. Recent studies include comparisons of crude prevalence rates of conversion reactions and psychophysiological reactions among verbal and non-verbal patients, and factors associated with "school phobia" of mountain children.

Sociology — Pertinent research has been completed recently or is currently being conducted on the following topics.

1. The social and economic characteristics of mountain families receiving public assistance through the AFDC-UP program in 1964. Publication: C. M. Johnson, A. L. Coleman, and W. B. Clifford, *Mountain Families in Poverty* (Dept. of Sociology and Agricultural Experiment Station: RS29) May 1967.

2. Poverty groups in Kentucky. Publication: R. J. Ramsey, *Forms and Scope of Poverty in Kentucky*, (Cooperative Extension Service, Resource Development Series 10) 1967.

3. The migration and urban adjustment of families from an Eastern Kentucky mountain neighborhood. Various articles by H. K. Schwarzweller, J. S. Brown, and J. J. Mangalam published. Monograph completed and submitted for publication.

4. Population studies: migration streams to and from Appalachia, and changing fertility patterns. Publication: G. F. DeJong, *Appalachian Fertility Decline* (University of Kentucky Press, 1968).

5. Comparative studies of occupational goals and aspiration levels of rural youth, with samples drawn from the Appalachian area.

3. RESEARCH RELATED TO POVERTY AND DEVELOPMENT, COLLEGE OF AGRICULTURE AND HOME ECONOMICS, OHIO STATE UNIVERSITY.

G. Howard Phillips,¹ Ohio State University

Research at The Ohio State University, College of Agriculture and Home Economics, and the Ohio Agricultural Research and Development Center has had as its main thrust the improvement of incomes of rural families and the more efficient utilization of that income in seeking a satisfying level of living. Research in general has covered the range from the macro to the micro and from the theoretical to the applied.

In the following paragraphs are a brief discussion of several studies related to poverty and development. It is not intended to be totally inclusive of all related research activities in the College of Agriculture and Home Economics, but is a representative sample.

A number of research studies have directly or indirectly viewed poverty or low income as an independent variable. Donald E. Steward conducted a study with this perspective in mind. The major purpose of Steward's research was to describe and classify rural families in Southeastern Ohio and to indicate some reasons for their low income. Southeastern Ohio is essentially the Appalachian Region of Ohio.

A study by Christine H. Hillman and Donald E. Steward examined the financial management practices of farm families in Southeastern Ohio. The findings of this study indicated a strong interrelationship between farm and home managerial practices and some of the economic problems encountered by families.

Two studies concerning the dentist and physician supply in the Appalachian area of Ohio have been conducted by John B. Mitchell and James R. Finley. Mitchell and Finley's studies indicated an inadequacy in the number both of dentists and physicians in the Region. In addition, they discussed the trends for the past decade and the future needs.

A recent study by Ruth Deacon, Francille Maloch and Ann Bardwell investigated the relationship of maternal health to family solidarity among low-income families in the Appalachian Region of Ohio. Low-

¹Write to the author for titles of research referred to by name of person responsible. Some of these have been referred to in the section below.

income families with healthy and chronically ill mothers were compared on such variables as interaction and transaction patterns, tasks performed by mothers, decision-making and family stability.

A study conducted by Ramsey H. Groves investigated education programs for students with special needs. Groves studied the current status of vocational programs and the common characteristics of vocational education programs for these students. In addition, he gave some attention to factors which are important in establishing, planning and operating vocational programs for students with special needs.

A second educational study concerned youth with special needs in nonmetropolitan Ohio high schools. This study by James B. Hamilton investigated means for identifying potential "drop-outs" in open country schools.

Sidney H. Evans studied costs and benefits from commuting for employment among persons living in core and satellite communities in the Appalachian Region of Ohio. This study attempted to evaluate the incidence of commuting and identified some of the major factors involved in commuting. Commuting is one alternative available to individuals and to communities seeking solutions in development programs. This study investigated many of the social and economic factors associated with this behavior. Although poverty was not a direct objective of this study, it revealed that poor people do not in general commute for employment. In addition, it would appear that their community of interaction is considerably more limited than that of their more affluent neighbors.

Gameh M. Gameh investigated the growth potential of Muskingum County, Ohio, utilizing an economic input-output model. This research effort was concerned with determining the potential influences of various economic alternatives available to communities in Muskingum County.

Leadership is also an important dimension of development. John B. Mitchell has conducted a series of studies concerned with identifying community influentials in the Appalachian Region of Ohio. These studies identify the more influential organizations, occupational pursuits of the most influential people, and community organizational participation patterns of these leaders.

W. H. Andrews, W. W. Bauder and E. M. Rogers examined the impact of industrialization on a rural Appalachian county in Ohio. Field work for this study was conducted in 1957 and 1962. Changes in many aspects of community life are documented in this longitudinal study.

Nehr and Mitchell examined the religious behavior of rural residents in four Ohio Appalachian counties. Many of the people interviewed were in the poverty class. This study sheds light on one other dimension of the poor: their religious beliefs.

4. POVERTY RESEARCH AT NORTH CAROLINA AGRICULTURAL AND TECHNICAL STATE UNIVERSITY

Howard F. Robinson, North Carolina A & T State University

Poverty research at North Carolina Agricultural and Technical State University is contained in three different projects: The Nutritional Status of Rural School Children; Migrant Workers in the Atlantic Coast Stream; and the Economic Adjustment of Rural People in North Carolina. The principal investigators are Seetha N. Ganapathy, LaMyra H. Davis, and Howard F. Robinson.

The nutritional studies will assess the nutritional status of rural children by detecting evidences, determining possible causes, identifying means and suggesting policies for solving critical nutritional problems. Manpower development studies will compare variables of age, sex, household, entrance and exit from the migrant stream, and duration of employment to variables of group and individual counseling. Economic adjustment studies will examine personal and economic characteristics, present policies, and alternatives to solving problems of rural poverty in North Carolina.

All of these projects have advanced to the stage where surveys are in progress. Several seminars and workshops have been held during various stages of the research, covering mostly procedural matters. The Institute for Research on Poverty at the University of Wisconsin, and the Migrant Affairs Group at Cornell University have served as consultants for these projects. The Institute for Research in Human Resources at Agricultural and Technical State University has served as the coordinating agency.

5. FURTHER RESEARCH WORK WE PLAN TO DO²

M. E. John, Pennsylvania State University

Further summarization of the five-county survey data on labor and other characteristics of low-income households will be completed and the results published.

Additional analysis will determine the types of rural poverty that exist, compare the frequency of occurrence of each type among the counties surveyed and isolate typical cases within each type which can be used as a subsample for further, more intensive investigation. One aspect that will be investigated is the relative strengths of various types of family structure for avoiding or coping with the problems of poverty and conversely the effects of a deprived situation on the structure of the family and the relationship among the members.

In the study of the levels of family income needed for equivalent levels of living, additional survey data from national quarterly surveys will be analyzed and the results will be reported. The poverty projections analysis will be extended to include (a) breakdowns by farm-nonfarm segments by color of household head, and (b) labor force participation rate as an additional variable.

During the next year research will be undertaken to examine the impact of industrial development in rural areas of Pennsylvania upon the size distribution of income, to determine if adding industrial job opportunities in a rural area helps reduce the number of low-income people living there.

Can the incomes of the low-income farm families in Pennsylvania be raised through a program of intensive farm management research and extension counseling?

In answering this question we will first inventory the state's low-income farms to determine how many of these farmers have the basic resources and personal and family characteristics needed to succeed in such a program. If the inventory reveals an appreciable number of participants likely to be successful, a pilot program will be initiated with a selected panel of 6 to 10 low-income farmers.

One study being started should shed light on the real estate tax burden of poor rural residents relative to other sectors of society. Another

²See abstract statement by John and Madden in Appendix II.

study is being initiated to evaluate a federal demonstration project in labor mobility. Workers from high-unemployment areas of West Virginia were recruited and placed in full-time jobs in Pennsylvania. The results of this demonstration project will be studied to determine factors associated with successful recruitment and relocation of such workers. Both of these studies are in the planning phase. Data will be collected and analyzed this summer and reports should be prepared during the 1968-69 fiscal year.

6. DEVELOPMENT OF AN INSTRUCTIONAL SYSTEM IN EDUCATIONAL POLICY STUDIES

John W. Kohl, Pennsylvania State University

This proposal is for a three-year project for the development of an instructional system in Educational Policy Studies in the College of Education at The Pennsylvania State University.

The Department of Educational Policy Studies is a newly-created unit that includes programs in the cultural foundations of education, educational administration, and higher education. Its purpose is to further integrate these programs by focusing on the area of educational policy development and implementation. The faculty in these programs as well as others in the University will provide resources for the application of knowledge in the behavioral sciences, and in education, to policy problems and to the preparation of personnel to make and implement policy.

The target area is the Appalachian region, an area characterized by rural poverty and by a lack of personnel prepared to work in the development of educational policy.

Ten persons will be selected each year to participate in the program. They will be primarily persons from the Appalachian region itself, familiar with its culture and traditions.

Program associates will consist of school systems, colleges and universities, state departments of education, the Appalachia Regional Education Laboratory, and other agencies in the Appalachian region which will assist in the identification of potential trainees. *Cooperating units* will be those agencies that will provide internships for trainees, and eventually employ personnel in policy-making and implementing positions. The use of program associates and cooperating units will help insure that the interests and problems of the region will be reflected in the program.

Trainees will participate in a two-year program that emphasizes individualized work in the behavioral sciences and education. An internship in a cooperating unit will be an important part of each person's program.

The emphasis will be upon preparing persons for positions in agencies such as regional laboratories, school cooperatives, Title III Centers, and other units that work primarily with groupings of school systems rather than in school systems themselves.

7. POVERTY RESEARCH AT THE UNIVERSITY OF TENNESSEE

C. L. Cleland, University of Tennessee

Research related to poverty in Appalachia is carried on by a variety of departments in the Colleges of Business Administration, Education, Home Economics, Liberal Arts, and in the Agricultural Experiment Station at the University of Tennessee. Brief mentions of the types of research being carried on or recently completed follow:

The center for Business and Economic Research in the College of Business Administration has a continuing program of analysis of reports to the state Department of Labor. The publications from these analyses deal with the numbers employed in various types of occupations, the wages paid to such employed persons, estimates of population and income per family for the counties of the state. Such data provide indications of change in the conditions in the counties of the state including the 49 in Appalachia.

In the College of Education at least two departments have research currently under way dealing with disadvantaged youth and educational programs in Appalachia. One of these focuses specifically on the identification and analysis of problems related to the teaching of disadvantaged children in rural schools. A number of surveys deal with the whole structure of public education in particular counties including the population to be served, financial conditions, personnel, organizations and administration, the physical facilities and the programs provided. Compilation of the results of such separate county studies could provide an indication of the current status of education in the area.

The College of Home Economics has some research involvement through the Agricultural Experiment Station as well as other means. One of the projects which included young people and their parents living in Appalachia was concerned with educational and vocational goals. This was a contributing project to regional project S-48 which

also involved Kentucky, North Carolina and Virginia. This study had a very rigorous design to permit a maximum amount of analysis of the data collected. The principal findings were: (1) that educational expectations were positively related to level of living; (2) boys expected their parents to pay more of the expense of a college education than the parents expected to pay; and (3) that more financial help from parents was available for boys for further education than for getting started in an occupation.

A second project in the College of Home Economics dealt with evaluation of a program to improve knowledge of good nutrition and related practices among recipients of food stamps in three Appalachia counties. The results of the study were inconclusive but it did appear that direct mailing of a series of simplified, well illustrated material was reasonably effective in getting nutritional concepts across to the target population. The effect on consumption habits was apparently too small to be accurately measured by the instruments used.

The Department of Sociology in the College of Liberal Arts has a research project dealing with the "culture of poverty" as found in rural Appalachia communities. Specifically, it is concerned with the adjustments to changing conditions being made by the residents of these communities. The locations and concerns of the various sub-projects are wide-spread, including, for example, law-breaking and law enforcement in a Kentucky community and adjustment to relocation due to development of the Redstone Arsenal in Northern Alabama. The results from these studies have not yet been published.

In the Department of Agricultural Economics and Rural Sociology a number of research efforts deal with poverty in the Appalachian area. One of these is the contribution to Regional Project S-61 and its predecessor, S-44. Tennessee's concern in this project has been with the scaling of level-of-living and other data and a comparison of the situations of rural residents of Central Appalachia with those of residents of other rural low income areas of the South, white and non-white. This comparison generally showed the Appalachia residents to be worse off than the whites living in other parts of the South but better off than the non-whites. One particular area of difference was in attitude toward borrowing money. Here the Appalachia homemakers were much more conservative than their counterparts elsewhere, white or non-white, with half of them of the opinion that no borrowing of money was good.

The current concern in analysis of the S-61 data is with the process of decision-making concerning migration. Aspects of the process in-

clude conditions which lead to considering moving from one location to another, sources of influence about moving, alternatives considered and the time pattern involved in the process. Cross tabulation of the time span from feeling a need to move to actually moving showed that higher levels of education, living and social participation tended to prolong the process for those families with dependent children at home. The data on occupational changes is also to be analyzed.

One other project dealt with the incorporation of the stages in the diffusion process into a program of the Agricultural Extension Service. The Trial-Acre Project was to carry farmers through a full production year in the trial application of the whole bundle of recommended practices related to the production of corn. The program was effective in influencing the participators but there was evidence that it did not go quite far enough. At least one of the participators did not grow corn the following year since his fields had produced so plentifully under the Trial-Acre Program.

8. DESCRIPTION OF RESEARCH DESIGN COMPONENTS AND SOME PRELIMINARY CONCLUSIONS

*K. W. Schaie, E. A. Vargas, R. B. Aquizap, M. S. Tseng,
R. S. Little, R. A. Ball, and R. T. Grannenber*

Human Resources Research Institute, College of Human Resources and Education, West Virginia University

The Human Resources Research Institute at West Virginia University entered into contract with the Office of Economic Opportunity to evaluate a rural non-farm Community Action Program agency in southern West Virginia. Seven similar large-scale evaluations were conducted around the country by others.

The first step was a research conference held at Mont Chateau near Morgantown, West Virginia, for the purposes of illuminating and solving some of the problems in the evaluation of social change. Subsequent to this conference, activities were directed toward research of the literature and toward field reconnaissance which furnished information for the final decisions regarding the form of the research design.

Aside from the 1960 census data, little was known of the target population or of the Community Action agency responsible for working with it. Demographic break-downs in the 1960 census were obsolete because of selective out-migration in the early 1960's. The need for fresh base-line data was indicated. Fresh data not only furnished necessary up-

dating of demographic data but also supplied attitudinal information associated with the county population in general with which various types of sampling clusters could be compared. It was decided to (1) break the community down into its salient institutional areas; (2) obtain base-line attitudinal and demographic data from the general population; (3) study the changes taking place as a result of the Community Action agency's work.

Basically, the *consequential design* called for a time-point measurement of the Community Action agency's *impact* and *objectives*, to furnish the data to evaluate various institutional areas. Originally, a three time-point measurement was to be done. Three time-point measures would be furnished on the initial sample, A; two time-point measures would be furnished on the B sample, and one measure would be furnished on the third sample which would be conducted in the third year. However, the third time-point measurements had to be cancelled due to the lack of funds. This problem affected only the cross-sectional adult attitude surveys and the youth attitude surveys, as the other subprojects did not follow this sampling design.

The instrument used in this survey measured attitudes toward the following institutional areas: community, education, employment, public health and sanitation, professional (medical and dental), political, utilities and transportation, family, economics, religion, and the Community Action agency. The initial sample was broken down into an 18-cell contingency table by race, sex, age, and education. Age was broken down into two categories; 44 and under, and 45 and over. Education was broken down into three categories; E1, through the eighth grade; E2, Grade 9 through 11; E3, High school graduates and above. Findings indicated that, as expected, level of education is congruent with the *level of living* and *level of communication*. The most notable racial difference (the area under study is approximately 23 percent Negro) is in the level of income; the Negroes at educational level 3 earn about \$2,000 less annually than their white counterparts.

Interesting implications for the institutional areas of education, employment and economics, and their associated CAA goals, are to be seen in the Job Mobility Scale. The results of this scale show that people from the higher educational levels are less inclined to be mobile than either the E1 or E2 groups; this reflects a need for intensifying education and training goals in the CAA so that the E1 and E2 groups will have less probability of failure upon migration to more heavily industrialized areas.

In measures of social isolation, the different levels of education are again the discriminating variables. Groups E1 and E2 are consistently in agreement with anomic attitudes, whereas the upper level E3's are in agreement with more socially facilitative attitudes.

Knowledge of local Community Action Program efforts, as reflected on the survey questionnaire, showed that Negroes were better informed about CAP activities than were whites, especially in the lower educational levels. It was discovered that approximately 33 percent of the sample had heard of CAP through reading about it, while 27 percent of the sample learned of CAP from word of mouth. However, only 15 percent of the sample had participated in any of the CAP programs as of the summer of 1966, with more Negroes than whites involved in each educational level. The race variable continues to be an important discriminator among religious variables, family size and birth control variables, as well as many other of the attitudinal areas investigated.

A survey was conducted to assess the level of professional services and the present status of public health and sanitation facilities within the county. Measurement was to be made in four hard-core poverty areas, geographically isolated in social settlements ranging from sparsely settled mountain districts to ghetto-type impact hollows. The original design called for medical history, health and sanitation, and epidemiological data as well as follow-up clinical examination data. For reasons beyond the control of the Research Institute, the clinical examination phase of the project did not transpire and the total study was cut short of obtaining medical history, health and sanitation, and epidemiological data from one of the four original sample sites.

Analysis of the data obtained, however, indicated conditions were far below standards for a modern civilized society on all of the variables measured. Due to the untimely termination of this study, several important questions have not been satisfactorily answered; e.g., the extent of tuberculosis and/or silicosis (and information leading to the misdiagnosis of either or both) and the ever-present question of the genetic effects of socialization patterns in these highly impacted poverty pockets.

Since both the conditions and the independent variables of "poverty" under study varied so greatly within the area, it was decided to collect and analyze data in terms of important geographic, topographic, and other variables having to do with the physical characteristics of the area. During the initial data-gathering period, five additional sampling clusters were identified according to their obvious dissimilarity in geographic characteristics, and were measured on the above mentioned

variables along with several control variables which also appeared on the cross-sectional adult attitude survey.

As part of this study a special ecological checklist was developed for use with parents of children in the year-round and summer Head Start Programs. Associated with this checklist, special scales were built to determine neighborhood perception, transportation accessibility variables, sources of water supply, quality of housing, child socialization facilities, etc. In addition, other scales were constructed quantifying other ecological dimensions and for utilizing aerial photography. They will be utilized in analyzing the data. All sample cases in all surveys are identified with Universal Transverse Mercator grid values.

A survey questionnaire similar in content to that of the Adult Attitude Survey was built. More extensive information, however, was obtained on variables important in yielding information on attitudes regarding the occupational, educational, and living patterns of the future. A special instrument validity study was conducted because several of the scales used in the instrument had been standardized on non-poverty, non-youth groups. The study resulted in the modification of the instruments in such a way as to preserve the original intent of the instruments but to maximize the level of understandability, thus increasing the reliability and validity of the instrument. The use of these data has been mainly to furnish background and attitudinal information for the special Occupational Development Study.

A Child Development Center study is geared to furnish information on the organizational and the community aspects of this CAP component as well as to evaluate the impact of the program on the children involved. The details of this evaluation sub-project will be gone into more fully in another report to be given at this conference.

A complete survey of the organizational relationships at all levels within the Community Action agency has been in progress since the very beginning of the agency's functioning. Since the fall of 1966, however, there has been a highly systematized information retrieval system built up between the research organization and the Community Action agency. Detailed reports have been made and correlated to yield valuable information on the relative efficiency of the agency as an organization. Agency events at all levels have been correlated with OEO events over time as well as with those events of external agencies which impinge upon the activities of the CAA. Organizational changes which take place are recorded and the effects of these changes are measured in terms of the subsequent impact on both the organization and its objectives on the target population.

At the present time, it can be stated that the Community Action agency of this county has gone through several stages of crisis, making appropriate organizational changes which have led to increased participation of the target population and have maximized the observable steps toward many of the organizational objectives. While the latest event should not be considered a terminal objective, it should be noted that upon the passage of the recent Lane Amendment to the Economic Opportunity legislation, the triumvirate County Court has designated the current director of the Community Action agency as its delegate agent on a permanent basis.

An investigation into the power relationships found in the community under study was conducted according to a reputational model design. Interviews were conducted with leaders in every institutional area, and a power structure was simulated on the basis of the data furnished in the study. The resulting picture was essentially of a monolithic, elitist power structure with lines of control being administered on an informal basis by the people in control of unitary based economic sanctions through the formal structure, which is probably headed by the superintendent of schools, who seems to be in control of other local government agencies.

This investigation takes a developmental approach toward vocational and other career aspirations of the youth of the community. It furnishes information on the appropriate variables of both the target and non-target youth population. The objectives of the study are to (1) study how occupational and vocational and educational objectives are developed in a specially deprived environment such as the one under study; (2) furnish data to feed into the evaluation of impact and to upgrade the organizational objectives of the CAA regarding job training, placement, and other educational programs.

9. CHILD DEVELOPMENT CENTERS STUDY: DESIGN AND PRELIMINARY CONCLUSIONS

Roman Aquizap, West Virginia University

The Child Development Centers constitute a major component of a large rural, non-farm Community Action agency in Southern West Virginia. Its general objective is processing deficiently-prepared children into individuals who are better prepared to cope with formal educational institution situations when they enter the public primary grades. The general criterion for the accomplishment of this objective would

be a significant decrement in the differences between the poverty population and the non-poverty population in learning task performance during the primary years.

The scope of this research is not extensive enough to furnish sufficient data to evaluate the ultimate accomplishment of the general objective. However, it has been possible to design the study to answer questions on treatment effects which are measurable thru the first grade; evaluation can be extended merely by making additional measures during the succeeding two years in follow-up.

Of more importance at the beginning of the study was the question of the degree of impact the Child Development Center program would have upon the target children involved. Related to this question are others concerning the program's effects on the target parents, the community, the other components of the CAA, and other institutions of the established community. In addition, the evaluation of impact is in terms of the program's objectives. Although the program objectives follow the guidelines set down by OEO, which are based on sound professional recommendations to date, they are much too broadly stated and need to be delineated into more specific content and procedural statements. Part of the research task was, therefore, to identify more exactly what the program elements and operational procedures *should* be, based on the developmental and other deficiencies of the target children and their developmental environment. The nature of these deficiencies is determined by measurement.

In order to serve both the evaluative and explanatory objective of this research, it was decided to do an ecological type of study, i.e., measuring a child's behavior with reference to his interaction with his total developmental environment. In order to accomplish this objective, the data were collected according to the following breakdown of the over-all ecology:

1. Child measures: cognitive, emotional and social development.
2. Environmental measures: parents' child-rearing attitudes and behavior, cognitive ability and style, personality and emotional behavior, status of demographic variables such as race, occupation, income, educational level, etc; physical aspects of the environment such as housing conditions, child development facilities, health and sanitation, geographic and topographic limitations on accessibility and activity, socialization, etc.

3. Teacher measures: teacher behavior with children (systematically observed), perceptual ability and cognitive styles, personality and emotional behavior, socio-economic background, educational level, attitudes toward problem behavior, etc.

4. Program variables: teacher input (ascertained as in (3) above), program elements, ratings of physical facilities, implementation variables such as transportation, parent involvement, administrative procedures and other organizational variables, program objectives and need congruence.

Information necessary for the evaluative requirements of the study is furnished by the measurements made in the child, parent, and environmental areas, from which an *ideal* program model can be simulated. Data from the teachers and the program can then be evaluated in terms of the simulated program and its objectives. Impact on the target children is based upon follow-up measurements made on their cognitive, emotional, and social development.

Explanatory developmental research questions (in this case mainly exploratory) are investigated by using the data obtained in all areas. By doing this, an attempt can be made to specify the various contingent relationships between developmental deficiencies (and their reduction) and the many socialization, organismic, physical, and demographic variables in this particular sub-culture.

An illustrative example of areas of program effectiveness and ineffectiveness is found in preliminary analyses of cognitive and social behavior as measured on standardized and specially designed instruments.

1. One of the measures of cognitive ability was made with the Cattell Culture Fair Intelligence Test (a test of basic ability or "g" factor). A rather exhaustive sampling of the population of the children who attend Summer Headstart programs and year-round child development programs has furnished data since the summer of 1965. These measurements show that the abilities measured by this instrument remain stable over time from sample to sample, and have *not* been improved in any way connected with the program. However, the results do show changes in sample variances, which indicate an even development of these abilities among the target children measured. Furthermore, these measurements show that the children from this sub-culture are penalized differently by the nature of their deprivation from the "normal" population. These penalties are in the form of deficiencies which seem directly related to cultural socialization experiences. Specifically, these are skills involving shifts in symbol systems and

spatial orientation combined with perceptual-motor coordination. Another area in which these children are deficient is the perception of incongruity, or inaccuracy in two-dimensional representation. In other, equally complex skills, the children score average or above as a group.

2. Measurement of social behavior, on the other hand, using a specially constructed observational checklist, shows definite improvement from participation in the program. The children are more able to relate appropriately and skillfully to authority situations, group participation situations, and role learning as a direct result of program participation. Furthermore, there is evidence that these effects have generalized through sibling relationships, and there seems to be a "generation effect" from one class year to the next.

In order both to find areas of developmental deficiency, and to identify certain developmental contingencies in this sub-culture, extensive data was collected from the parents on historical child-rearing practices, as well as on concurrent parental sanctions in the areas of dependency, aggression, sex, and gender role-behavior-achievement motivation, and various social role behaviors. So far, two major findings have been illuminated in preliminary analyses of the data. These findings are in addition to the documentation of the vast differences in parental child-rearing behavior and attitudes between this poverty group and the at-large middle-class culture. These findings are (1) that the mother and father *differentially* reinforce *different* kinds of behavior in their children; the critical behaviors are: dependency and independence, sexual behavior, adult role, and aggression, with the essential emasculation of the male child being the result; (2) that the children are reinforced for destructive aggressive acts among their peers and siblings, although on a schedule which produces conflict; however, these children are systematically extinguished with respect to the pro-social types of aggression, which are needed to survive in the formalized, middle-class institutions. Again, males are influenced in this manner more than females.

To date, there is little planned formal attention given in the program to the problems of these "de-socializing" experiences found in poverty homes.

B

SPECIAL REPORTS

Reports relating to special problems may be classified into three categories: (1) those relating to improving economic conditions; (2) those relating to improving education and training; and (3) those relating to defining poverty and how to reach and work with those in poverty and those in ill health. These studies reveal the wide variety of research and action projects underway in the region, and demonstrate the need and value of some form of region-wide consultation and collaboration in Appalachia.

1. STUDIES RELATING TO IMPROVING ECONOMIC CONDITIONS:

a. *Alternatives for Increasing Income of Farms in Southwest Virginia.*

Summary of Reports by Researchers in Agriculture and Life Sciences, Division of Research, Virginia Polytechnic Institute³

Appalachia is a nonurban land with a population over 50 percent rural but less than 10 percent farm, largely unemployed (or underemployed) and frequently deprived of the facilities and services of a modern society. Sixteen counties of Southwest Virginia are included in Appalachia, which has been designated by a Presidential Commission as a region apart from the rest of the nation in deprivation and underdevelopment.⁴

Approximately 80 percent of the total population of Southwest Virginia is classified as rural, with 29 percent classified as rural farm and 51 percent classified as rural nonfarm. The topography is rolling with nearly all the land included in the Limestone Valley and Mountain Upland Areas. Farm size is small. One half of the farms have less than 50 acres of total land per farm and 70 percent have less than 100 acres per

³Contributors include R. E. Blaser, T. Johnson and F. McLaugherty, studying pastures; J. S. Copenhaver studying lamb production; G. M. Shear, W. W. Moschler, J. H. Lillard, studying notillage methods; R. G. Henderson, L. A. Link, W. Kroontje, and W. E. Chappell, studying tobacco production; W. E. Chappell, R. D. Hendrick, and J. P. Sterrett, studying control of unwanted plants in forests; L. S. Davis, studying market efficiency in the Appalachian hardwood lumber industry; and R. G. Kline, W. D. Givan and T. Little, studying economic opportunities for adjustment on burley tobacco farms in Southwest Virginia, all of Virginia Polytechnic Institute.

⁴Counties included in Southwest Virginia are: Floyd, Carroll, Pulaski, Giles, Bland, Wythe, Grayson, Smyth, Tazewell, Buchanan, Dickenson, Russell, Scott, Wise, Washington and Lee, adjoining counties to the north are: Craig, Botetourt, Alleghany, Bath and Highland.

farm. Approximately 70 percent of the total land is open land of which approximately 40 percent is suitable for cultivated crops.

Fifty-eight percent of the farms sold products at \$50-2,499, while only one percent had sales of farm products over \$40,000 in 1959. Traditionally this has been a livestock-burley tobacco producing area. Much research by the College of Agriculture and the Research Division at Virginia Polytechnic Institute has been directed to provide information which will help increase income on Southwest Virginia farms.

DEVELOPING OPEN LAND

Since approximately 60 percent of the open land in Southwest Virginia is not suited to crop production much research has been oriented to more fully develop the potential of this land. Three types of research have been emphasized: (1) control of thistles and woody plants in Southwest Virginia pastures, (2) improving the pasture production and utilization, and (3) utilizing steeper land that has potential for crop production by the no-tillage method of crop production.

Thistles and woody plants are serious weeds in pastures of Southwest Virginia and are rapidly spreading throughout the 1,350,000 acres of pasture land. Presently available chemicals are fairly effective but with present methods of application they are not economical for large acreages of pastures which have relatively low annual returns. Research subjects planned include aerial applications of herbicides for the terrain in much of this area and a search for natural enemies of thistles such as insects and/or disease that will devour these plants. These are types of research that could greatly benefit from interinstitutional and interdisciplinary participation.

Many of the pastures of Southwest Virginia are of very low productivity in terms of livestock products from the pastures. Various rates of fertilization along with alternative stocking rates are being studied for bluegrass pastures. Gains in weight for steers pastured on fertilized pastures have been greatly influenced by stocking rate. The gain in weight per acre of 292 pounds, 360 pounds and 347 pounds was realized for steers stocked at light, medium and heavy rates respectively. The gain in weight per acre was increased to 452 pounds when additional nitrogen fertilizer was used with heavy stocking. Additional research is needed relative to economical methods of applying fertilizer to the rough and steep terrain of Southwest Virginia. There is a great need for information concerning the productivity of pastures in Southwest Virginia with alternative fertilization practices and livestock utilization systems.

The capacity of Southwest Virginia farms for livestock production could be increased greatly if a larger percentage of the open land could be used for corn and corn silage production. Many soils that are otherwise suitable for corn production cannot be used because of the erosion problem. New conservation tillage procedures are revolutionizing seed-bed preparation and planting techniques for corn production. In 1960, Virginia and A.R.S., U.S.D.A. researchers began experiments in growing corn without tillage of the soil. This method has been called by various persons the no-tillage method, the zero-tillage method, or the no-plow method. Since a dead sod is considered essential for best results, the term "sod planted" has also been used to designate this procedure. The method consists of planting the seed in a dead sod mulch with the least soil disturbance necessary for proper placement, germination, and successful establishment. The sod (such as orchard grass or a rye cover crop) is killed by the application of chemical herbicides prior to corn planting.

The no-tillage method proved to be advantageous from many standpoints, and research was intensified to adapt it to the average farm. Meanwhile, numerous corn growers have been using the new method despite the lack of completely suitable herbicides or planters. Their experiences have added valuable information.

In eight years of research, comprised of a number of experiments in different regions of the state, no-tillage corn yields have been at least equal to and often higher than those from conventionally planted corn, provided the sod was completely killed before corn planting and comparable stands were obtained. Table 1 presents some typical comparative yields.

Table 1. Corn grain yields, when grown by the no-tillage (in orchard grass mulch) and conventional methods, on Lodi loam soil at Blacksburg during the 1962-1967 period:

Year	GRAIN YIELD		Increase	
	No-Tillage Method	Conventional Method		
	bu/acre	15.5% moisture	bu/acre	%
1962*	131.6	114.9	16.7	14.5
1963*	75.2	63.7	11.5	18.0
1964*	126.2	101.8	24.4	24.0
1965	157.7	151.4	6.3	4.2
1966	97.9	96.2	1.7	1.8
1967*	136.6	95.1	41.5	43.6
Average	120.9	103.8	17.0	16.4

*Denotes years when the increase in yield by the no-tillage method over the conventional method was statistically significant (5% level).

Sod Crops for Mulch. Both perennial and annual sods are suitable mulches for no-tillage corn. Perennial sods include orchard grass, tall fescue, bluegrass, and mixtures composed predominantly of these grasses with clovers or annual lespedeza. Straight clover sods decompose more rapidly than grass sods and hence the mulch is less persistent and efficient.

Rye is the best annual winter cover crop to use as mulch for no-tillage corn because of its ease of establishment, winter hardiness, ease of killing with chemical herbicides, and persistence of the dead mulch. Wheat is acceptable but produces a smaller quantity of less persistent mulch. Barley is less suitable because of its resistance to available herbicides. Annual ryegrass or crimson clover may be suitable in warmer areas of the state if seeded early enough to make considerable fall growth. Sods containing more than a few scattered alfalfa plants should not be used, since alfalfa is difficult to kill with available herbicides.

Herbicides for Killing Sod Mulches and Controlling Annual Weeds. For perennial sods use $3\frac{3}{4}$ lbs. of 80-W atrazine⁵, plus $\frac{1}{2}$ lb. active ingredient (1 quart) of Paraquat⁵, plus $\frac{1}{2}$ pint of X-77 wetting agent or its equivalent, per acre. Mix these with enough water to give good coverage (25 gal. or more per acre).

For annual crops (rye, wheat, ryegrass) use $2\frac{1}{2}$ lbs. of 80-W atrazine, plus $\frac{1}{4}$ lb. active ingredient (1 pint) of Paraquat, plus $\frac{1}{2}$ pint of X-77 wetting agent or its equivalent, per acre. Use water as for perennial sods.

Planting Equipment. No special type of planter is necessary. The only rigid requirement is that the seed be placed at the proper depth (about $1\frac{1}{2}$ inches) with good soil coverage to eliminate air pockets. This can be accomplished by conventional type planters modified to include a narrow chisel mounted in front of the seed placement boot to provide enough row tillage for proper seed placement and uniform penetration. A rolling coulter preceding the planting unit to cut through the sod and surface residues is helpful. To achieve proper compaction over the seed, the row press wheel should be convex in shape like a pneumatic tire rather than the concave split-rim type. Most manufacturers can supply these modifications for their planters from standard production items. Some manufacturers now have special no-tillage planters available.

⁵There is no residue to tolerance established on atrazine. Paraquat has a residue tolerance of 0.05 ppm. on grain, fresh vegetables, fodder, and forage.

Rotations or Crop Successions. Most of the no-tillage corn grown by farmers has been continuous corn. The corn is cut for silage, rye seeded back on the land, and corn grown again the following year. The rye seed is generally broadcast and the land lightly disced to cover the seed. Rye can be drilled without preparation of the soil, provided the soil is soft enough to obtain seed coverage.

In other instances small grain has been seeded after corn, followed by grass and clover. Still others have shredded the cornstalks after harvest and seeded grass and clover the following spring. A grain drill has been used to do the seeding, making plowing or discing the soil unnecessary. If the land were lightly disced, seeding with a cyclone or similar seeder would be practical.

Continuous no-tillage corn (corn each year with rye cover occupying the land each winter) has yielded as well as no-tillage rotated corn (corn every other year alternated with orchard grass) in research trials. It is necessary to keep up the fertility and lime content of the soil to accomplish this, in addition to providing a good winter cover crop (seeded early and thick) to serve as mulch.

Removing Annual Winter Cover Crop before No-Tillage Corn. The removal of the cover crop prior to planting corn and planting in the stubble will reduce yields by an average of at least 15 to 20 percent. A good mulch is essential for the no-tillage method to be most successful, and its removal might be false economy unless forage was badly needed, because corn yield lost would be worth more than the value of the forage or grain gained. Soil moisture is depleted by growing the cover crop to the silage stage, and its removal exposes the soil to increased water loss by evaporation. Typical increases in no-tillage corn yields due to leaving the cover on the land as mulch compared to removing it are presented in Table 2.

Table 2. Comparative no-tillage corn grain yields when rye cover was left on soil surface as mulch and when removed from land at corn planting (simulated silage harvest):

Year	Location	GRAIN YIELD		Increase	
		Rye Removed bu/acre	Rye Used As Mulch 15.5% moisture	bu/acre	%
1965	Holland	123.0	146.0	23.0	18.7
1965*	Charlotte				
	Courthouse	99.9	112.4	12.5	12.5
1966*	Blacksburg	77.5	95.9	18.4	23.7
Average		100.1	118.1	18.0	18.0

*Denotes instances when the increase in yield due to using the rye cover as mulch compared to removing it from the land was statistically significant (5% level).

Grazing the cover crop in moderation may be feasible, but soil compaction should be avoided as much as possible, and the stock should be removed early enough to allow considerable growth prior to killing the sod.

Insect and Bird Problems. Army worms sometimes appear on young corn planted in small grain mulches. They are capable of completely consuming the plants under some conditions. Cutworms or wireworms may occasionally be serious. The grower should be prepared to spray if the threat of damage justifies it.

Birds pull up young no-tillage corn plants somewhat more than they do conventionally planted corn. No solution to this problem has been found, and an increase of 10 to 15 percent in the number of seeds planted per acre is recommended for the no-tillage method.

ALTERNATIVE GRAZING PROCEDURES

A major problem facing farmers in Southwest Virginia is how to obtain higher net livestock returns from the pasture acreage. The Animal Science Department at VPI has conducted extensive research with alternative grazing systems for cattle and sheep.

For the past ten years a considerable proportion of the research effort of the Animal Science Department at VPI has been directed toward development of practical management systems that would permit several-fold increases in the number of sheep that can be profitably carried on the average farm. Larger flocks or production units, large enough to provide a major portion of the income from a farm, are imperative if the sheep industry is to survive and prosper in our area. Small flocks, although highly profitable in terms of return per unit of input, do not provide a significant volume of income, are usually neglected, and are too often liquidated.

The principal hazard to concentration of sheep numbers on a restricted acreage is the increased level of disease and parasite infection that usually occurs. Mature sheep develop resistance to or tolerance of most internal parasites and can be concentrated fairly heavily on pastures. In fact there is good evidence that the worm burden is lower when pastures are grazed heavily than when grazed at more moderate levels. Lambs, however, are very susceptible, and become severely infected with worms during late spring and early summer when grazed with their mothers at moderate to heavy stocking rates, particularly during wet seasons.

If intensive sheep production is to be successful in the temperate humid regions of the United States, some method must be found to avoid infection of lambs by internal parasites. This really means breaking the chain of infection from the ewe to the lamb. Several management systems to accomplish this have been tried by the research team at VPI, for the past several years.

The current phase of this research involves weaning lambs at 30-40 days of age, rearing them in confinement on a pelleted complete ration, and rebreeding the ewes for more than one lamb crop average per 12-month period. Different management methods, sources of breeding stock, ration requirements and control of diseases and parasites are being studied. The results are highly encouraging. Early weaned lambs have gained at rates exceeding $\frac{3}{4}$ lb. per day and have reached market weights of 95-100 lb. at less than 4 months of age. Feed conversion efficiency has been high, ranging from 2.89 to 3.5 lb. feed per pound of gain and a total feed cost per lamb of around \$10.00. An average of $2\frac{1}{2}$ lambs marketed per ewe year has been reached with mature ewes. This should be exceeded with more highly prolific breeds or breed crosses.

This system should be applicable to small to medium sized farms in the Appalachian area. Relatively small capital outlay would be required as many existing buildings can be adapted at rather low cost. A reliable and economical source of feed would be needed. An educational program with fairly close technical supervision for a year or two would probably be required to ensure success. Marketing would not appear to be a serious problem. It seems well adapted for a cooperative community approach.

TOBACCO CULTIVATION

Approximately 12,400 acres of burley tobacco are grown annually in Southwest Virginia. Burley tobacco is the most important cash crop for the area although the allotted acreage per farm is small, less than 0.5 acre on many small farms to an average of 3.0 acres on farms with over 100 acres of cropland. Net returns to labor average from \$1,000 to \$1,500 per acre. Thus research concerned with all phases of burley tobacco production is of vital importance to the area economy. Research studies at VPI include: production of transplants, growth regulations related to sucker control, chemical topping, uniformity of growth and ripening, evaluation of advanced breeding lines, interactions of fertilizer elements, weed control methods, and harvesting and housing methods.

FINDING THE BEST ENTERPRISE MIX

A problem facing most farmers in the Appalachia area is how to obtain and organize resources to achieve a more satisfactory income. Research workers in the Agricultural Experiment Stations of Kentucky, Tennessee, and Virginia, along with research personnel from ERS, USDA, and TVA, have been conducting research relative to the opportunities for adjustment on burley tobacco farms in the three states. Work in Virginia relates to Lee, Scott, Russell, Washington and Smyth Counties, all in Virginia Appalachia. In 1964 in these five counties there were 10,200 farms. Of these farms 5,440 were commercial farms of which 50 percent had less than \$2,500 gross annual sales of farm products. A survey of the farms was made to determine the resources available. Based on survey information the farms with 10-29, 30-99, and over 100 acres of open land were classified as small, medium and large respectively. Agricultural economists, in the three states of Kentucky, Tennessee, and Virginia, working with crop and livestock production specialists and personnel from USDA and TVA, cooperatively developed procedures for crop and livestock budgets. With linear programming, the most profitable combination of enterprises for each size of farm was determined. Analyses were also made to determine the size adjustments necessary on farms with less than sufficient land to provide an income of \$3,500 at various rates paid for hired labor.

Optimum organization for the small farms is the allotted 0.9 acres of tobacco, 37 feeder cattle and corn silage and forage for feed. This organization, which will provide the operator productive work less than 600 hours per year, returns to operator's labor and land \$2,600 per year.

For medium and large farms the most profitable organization in addition to allotted acres of tobacco (1.75 and 3.0 acres respectively) is Grade A dairy with most of the crop land utilized to produce corn silage and alfalfa for feed. Returns to land and the operator's labor are \$10,000 and \$25,000 respectively. Non-land capital investments are \$50,000 and \$123,000 per farm respectively. Organizations including feeder cattle rather than Grade A dairy provide 15 percent to 20 percent less income but require 20 percent to 30 percent less non-land capital.

Even with optimum adjustments, farmers with 55 acres or less of open land were not able to attain an operator's labor income of \$3,500 annually with hired labor as high as \$1.50 per hour. To provide a minimum operator's labor income of \$3,500 annually with hired labor at \$1.50 per hour it will be necessary for farm size to increase, and for the number of commercial farms in the area to decrease approximately 40 percent.

A crucial implication of this study is that research oriented to the farm sector of Southwest Virginia, alone, does not provide adequate information for many people now receiving a substandard living on small farms. Nor does it provide adequate information for community planners concerned with low rural incomes.

What steps should be taken to insure that present children and children born in future years will not face the same hopeless situation when they become adults? What should be done to insure that these children will have schools and training that will enable them to compete with children of other areas in the United States? What measures should be taken to train present youth and adults for better-paying jobs? What mix of industries (farming, forestry and wood products, processing of farm products, other manufacturing, and service industries) and public services should be developed to enable these people to attain a standard of living comparable to that now enjoyed by people in other areas of the United States? Answers to these problems in a form that will be useful for community development will not be forthcoming from adding together bits of information gleaned from the many research projects of agriculturalists, architects, educators, sociologists, engineers and political scientists. The many problems are interrelated. Community leaders interested in action programs need the type of information which is the result of research designed to cope with the interrelation of the many problems. Economic development has a cost. to the nation, to the various states, and above all to the community involved. Researchers need to provide information in a form that will facilitate the evaluation of alternative choices of action. This will require not only interdisciplinary research, but to a large extent inter-institutional cooperation.

b. A Computerized Plant Location Model For Market-Oriented Firms, and Studies of Water Resource Project Benefit Measurement.

A Report by the Tennessee Valley Authority

The purpose of this model is to determine the optimum location for a firm's next branch plant to produce a specific product, considering the following variables:

1. Distribution of the national market by state.
2. Location of the firm's branch plants which manufacture the product.
3. Relative capacity of each plant.
4. Distance from plants to the market in each state.

The model is based on the assumption that a firm is interested in maximizing its access to the market.

The model analyzes three types of products — industrial, consumer, and a combination of the two. State markets for industrially consumed products are estimated using the following method:

$$M_i = \frac{N}{j=i} (R_j \times E_{ij}) \quad (i = 1, 2, 3, \dots 49)$$

where M_i = market in State i
 R_j = ratio of consumption per employee in industry j
 E_{ij} = employment in State i in industry j
 N = number of consuming industries

The state markets for consumer products are estimated with the use of a weighted index of the independent variables which influence the purchase of the product.

The distance is measured by a coordinate system. A map of the United States was overlaid with a grid scale and coordinates for each county were read. Each state was assigned a geographic market center which was determined by the concentration of manufacturing and population. With the use of county coordinates to locate market centers and branch plants, the distance is calculated using the Pythagorean Theorem.

With the use of estimates of state markets and distance from the points of production to the market, a model was developed to analyze a firm in relation to the national market, considering the location of the firm's branch plants and the relative capacity of each. An abstract index called market potential index (MPI) is used to measure a firm's "well-being" with the new plant and compare it to the existing situation. The market in each state is divided by the distance from the plant to each state served by that plant. State markets are assigned to individual plants according to plant capacity and MPI, using the transportation of linear programming. MPI is calculated as follows:

$$MPI_k = \frac{L}{i=1} (M_i / D_{ki})$$

M_i = market in State i
 D_{ki} = distance from plant k to State i
 L = number of states served by branch plant k
 where MPI_k = market potential index for branch plant k

The objective is to maximize the MPI for a firm. The result would be the sum of the MPI's for the firm's branch plants.

Examples and a summary of the results of the model are included in another paper.

The Development of Methods Used in Evaluating Recreational Benefits of Multiple-Purpose Water Resource Projects. This study traces and discusses the treatment of outdoor recreation in a benefit-cost analysis. Methods proposed and/or utilized in evaluating recreational benefits are examined in detail. The methods examined are: (1) expenditures method or gross volume of business method; (2) value-added by recreation expenditures method; (3) national income or gross national product method; (4) cost method; (5) market value method; (6) methods based on consumers' surplus; (7) monopoly revenue method or Clawson's demand curves; (8) discriminating monopoly revenue method.

Major extensions of the monopoly revenue and discriminating monopoly revenue methods are examined.

The study concludes that the market value method is the commonly accepted technique for evaluating recreational benefits; however, because of its inherent weaknesses, alternative methods based on demand curve analysis using travel cost data as a proxy for price have been proposed. The proposed methods are discussed in detail.

The study also presents some suggested areas of additional research so that recreational benefits can be given status equivalent with that of other types of benefits in the benefit-cost analysis. Principal research needs are the determination of: (1) factors (or variables) that affect demand for outdoor recreational opportunities; (2) type of data, degree of accuracy, reliability necessary in the data, and appropriate techniques for obtaining the necessary data; (3) identification of groups which benefit from the provision of water-related recreational opportunities and the manner in which the benefits accrue; (4) the proper interpretation of the area under a derived demand curve for different decision-making environments; (5) the impact of supply of recreational opportunities on the benefits; (6) the effects of alternative management plans upon project benefits.

Benefit-cost Analysis for Water Resource Projects: A Selected Annotated Bibliography. This bibliography is concerned with the current state-of-the-art of benefit-cost analysis for water resource projects. The literature concerned with water resource development is widely scattered; therefore, the purpose of this bibliography is to bring this literature together in one source.

At the present time, principal emphasis in the bibliography is placed on the following project purposes: (1) flood control; (2) navigation; (3) pollution (quality) control; (4) recreation; (5) enhancement of land values surrounding a water resource project. Although a water resource project may serve other purposes such as water supply, hydroelectric power, irrigation, etc., these purposes are not explicitly considered.

A revision of the bibliography will be issued in the fall of 1968. The revision will bring it up to date through 1967 for the above project purposes, and the revision will also include the additional purpose of water supply.

Future work will include additional factors such as expansion benefits, redevelopment benefits, and "nonmarket" elements.

c. Rural Land Ownership and Economic Development of a Three-County Area.

Arthur J. Walrath, ERS, USDA^a

The economy of the 3-county area of Alleghany and Bath Counties in Virginia, and Greenbrier County, West Virginia has undergone great change since 1960. Employment declined by more than 11 percent with the greatest decrease in agriculture, forestry, and mining. Even though some industries moved out, employment in manufacturing remained at the same level.

With this decline in employment was an eight percent loss in population with the greatest loss in the rural areas. The greatest loss in population was in the group between 18 and 45 years of age in 1960. Many migrated to other areas to obtain employment. At the same time, the number of persons 65 years of age or older increased by one-fourth.

The median family income increased in the three counties, but the relative position of each county in respect to the state was lower in 1959 than in 1949. Other counties in the state had greater percentage increases than these three counties. This can be related to the large decline in employment in the commodity-producing industries and to the lack of changes in employment in the non-commodity producing industries.

The number of farms decreased by 35 percent. The increase in the average size of farms, as reported in the Census, arises because of the drastic decline in the number of small units and not because of actual increases in the size of existing farms. Large farms have become smaller.

^aWalrath, Arthur J., Summary of Bulletin 10, Research Division, Virginia Polytechnic Institute, September 1967.

Transfer of land between ownership units was great. For example, 60 percent of the land in units of 140 to 220 acres in 1950 was in either smaller or larger units in 1962.

There is a greater tendency for land in large units to shift to smaller units than for land already in smaller units to make this change. For example, 31 percent of the land in units of 500 acres or more in 1950 was in units of less than 500 acres in 1962. On the other hand, only 22 percent of the land in units of 140 to 219.9 acres in 1950 shifted to units of less than 140 acres in 1962.

There is also a greater tendency for land in smaller units to shift to larger units than for land in larger units to make this change. To illustrate this, we find that 49 percent of the land in units of 50 to 139.9 acres in 1950 was in units of 140 acres or more in 1962. On the other hand, only 30 percent of the land in units of 220 to 499.9 acres in 1950 shifted to units of 500 acres or more in 1962.

The main change in the pattern of ownership involved the creation of many small ownership units. The number of variable units with less than 50 acres increased from 172 units in 1950 to 273 in 1962. In both years, this involved about 4 percent of the land in the variable units.

The small ownership units provide little income for the county. On some units, the total annual property tax is under 25 cents. The annual tax was less than \$10.00 for 39 percent of the variable units with less than 50 acres in 1962.

Between 1950 and 1962, there was no tendency towards concentration of land ownership. In 1950, 10 percent of the units included 41 percent of the acreage. In 1962, 10 percent of the units included 39 percent of the acreage.

Some enlargement of ownership units has taken place but most of this land was not in farms.

The changes that have taken place are not likely to generate further economic growth. It can be argued that the loss of the large number of small farm units has improved the economic outlook. With the decline in number of farms and the land in farms, land is shifting more into a forestry cover. However, changes in the pattern of ownership do not indicate that economic forestry units are being created. A limited amount of management is being applied to some forestry units, but opportunities exist for the extension of the management over a greater area. At present, it does not appear that this is being brought about with the changes in ownership.

With the changes that have taken place, there has also been a change in the pattern of human occupancy. Some isolated residences are no longer occupied. Counties might consider the advisability of adopting zoning to guide the future use of these lands.

d. *An Analysis of the Use of the Investment Credit to Reduce Unemployment in Poverty Areas.*

William J. Grasty, Virginia Polytechnic Institute

In 1967, the late Senator Robert F. Kennedy of New York introduced into the Senate an Act entitled "Urban and Rural Opportunities Act of 1967." The stated purpose of this act is as follows:

"It is the purpose of this Act to reduce poverty in the Nation's cities and rural communities, and the social, physical, and psychological ills associated therewith, by creating incentives for private industry to provide additional employment opportunities to the residents of urban and rural poverty areas."

In order to carry out this purpose, the act proposed the creation of several types of tax incentives. The most important and the one subject to our research was the investment (tax) credit. The investment credit is a credit against the income tax liability of an individual or business firm which is allowed by the government for amounts invested in particular assets that meet specific requirements. Title I of the Act spells out the eligibility requirements to be met in order to receive assistance under it. The most important general requirement in relation to the investment credit is as follows: The firm must ". . . provide, in connection with its operations at such industrial or commercial facility located, or to be located, in a poverty area, qualified jobs for at least 20 full-time employees, of which not fewer than two-thirds of all persons holding any such qualified jobs are persons who were, prior to such employment, low-income individuals who (i) have resided in such area for six months or more, or (ii) were unemployed."

Also the wages must be paid at rates not less than the minimum wages determined by the Secretary of Labor.

Title II of the proposal sets forth the specific requirements to be met in order for assets to be eligible for the investment credit. The term qualified expenditures means that these expenditures; (1) have been properly charged to the capital account; (2) are for the production, manufacture, construction, purchase, or improvement of real or personal property; and (3) are made during the ten-year period

beginning with the date on which the enterprise's eligibility for the program is established.

The amount of the expenditure for real property is subject to a credit of seven percent while that for personal property is subject to a credit of ten percent. The personal property must have a useful life of at least four years and the real property must have a useful life of ten years. These expenditures may not, however, double as qualified property under the existing investment credit.

The above credits have the following three major effects on business: (1) they increase the attractiveness of investment projects by raising the rate of return on the qualified expenditures in personal property by approximately 23 percent and on real property by about 18 percent (this is assuming, of course, that the company operates at a profit); (2) they accelerate the cash flow from these projects since the credit is allowed as a reduction of the income tax liability in the year in which the qualified expenditures are made, and (3) they add to the supply of funds available for future investment.

These benefits must be evaluated, however, in relation to the already existing seven percent credit on personal property. When this is done the benefits on personal property are reduced considerably. The benefits for real property are the same since real property under the existing law is not subject to the investment credit.

These benefits definitely favor the capital-oriented industries and conflict with the important general requirement stated above that at least two-thirds of all persons holding jobs in facilities arising out of the investments subject to the credit must be persons who were, prior to such employment, low-income individuals who have resided in the area for six months or who were unemployed.

Will the above incentives actually fulfill the goal of creating jobs for the poor? There is little doubt but that investment credit is an incentive for business investment in capital assets, but the majority of the unemployed labor element to be found within our poverty areas is composed of the unskilled or ill-qualified worker who forms the backbone of this country's "hard-core" unemployed, and this segment is the least prepared to fill the jobs created by a capital-oriented industry. Businesses locating in the poverty areas will be faced with the task not only of utilizing this ill-qualified labor but also of utilizing it at a profit, if these businesses are to procure the benefits from the proposed investment credit.

Sociologist Norton E. Long defines the problem succinctly: "What the poor need is employment, and in a capitalist society employment depends on someone being able to make a profit from their employment. To pretend otherwise or to look askance at the necessity of someone's having at least to meet his business costs is both self-defeating and intellectually dishonest. It does a disservice to the poor."

Since the investment credit places prime emphasis on investments in capital assets, the capital-oriented type of business enterprise will benefit the most and this type of enterprise is structured along the lines of automation and labor-saving machinery and has a keen eye for technological innovations. Therefore, the requirement of the jobs created will be for workers of a skilled and highly-skilled nature rather than of the low-skilled type more common in the poverty areas.

J. M. Rosenberg in *Automation, Manpower, and Education* has summed this up as follows. "Perhaps no single group of people has felt the impact of automation to quite the same degree as unskilled workers. The reason behind this is quite obvious. The unskilled worker is often capable of only the most routine and repetitive type of job; yet it is this very type of activity that is most readily automated and mechanized."

Hence, a situation exists in which the type of business enterprise most likely to be drawn by the prospect of the investment credit would be the type of organization which would yield a job structure poorly suited to the needs of our poverty areas.

Thus the following conclusions relating to the economic implications of using Senator Kennedy's investment credit proposal to reduce unemployment in the poverty areas were reached:

1. The beneficial efforts of the Kennedy credit would be greatest for the capital-oriented type of business organization.
2. The labor element in our poverty areas and the employment requirements of the Kennedy Act are not compatible with the composition of jobs created by the capital-oriented type of business organization.

¹Merle Hostetler, *et al.*, "Poverty and Profit," *Harvard Business Review*, Vol. 42 (Sept.-Oct., 1964), p. 16.

3. The appeal of the Kennedy credit would be diminished by the investment credit already existing in our tax law.

The import of the above conclusions is that the Kennedy credit would be ineffectual in achieving the goal of reduced unemployment in poverty areas. A better use of the investment credit concept, in the case of poverty area situations, could be made if the credit were directly related to the labor element in such areas rather than to investment in capital resources. The emphasis should be shifted from the investment in capital resources to the investment in "human resources." In this manner, the incentive value of the investment credit concept to a business locating in a poverty region would be directly related to that business' use of the labor element in that region. The magnitude of the credit for investment in the "human resources" of our poverty areas could be determined on the basis of the jobs created and the training costs incurred by the business.

Such a proposed change in emphasis in the investment credit concept would furnish considerably more appeal to the labor-oriented type of business organization, which, in turn, would offer a job structure potentially more compatible with the needs of the labor element in our poverty areas. In addition, with this change in emphasis to a credit for the investment in the "human resources" of our poverty areas, the businesses locating in such areas would still receive the benefit of the investment credit already in our tax law today.

As movement is made away from the capital-oriented business enterprise toward the labor-oriented type of business organization, there is a decrease in the absolute benefits derived from the investment credit. Along with this decrease in the absolute benefits to the labor-oriented business enterprise goes a decrease in the "impact" of the investment credit on these businesses. As movement is made away from the capital-intensive business structure towards the labor-intensive business structure, a job framework takes form which is potentially better suited to the ill-qualified labor element in our poverty areas.

e. Personal Bankruptcy: An Analysis of the Causes of Financial Failures of Families

Dr. H. Lee Mathews, Pennsylvania State University

The great increase in personal bankruptcy filings between 1950 and 1966 has caused much apprehension among creditors, legislators, and other groups concerned with the welfare of our society. Total

filings under The Bankruptcy Act increased from 33,392 in 1950 to 192,354 in 1966, an increase of 477 percent. In the same 16-year period nonbusiness, or personal, bankruptcies increased from 25,040 to 175,924, a growth of 602 percent.⁸ Furthermore, along with the absolute increase, the relative percentage of total filings attributed to nonbusiness bankruptcies has grown from 75.0 percent to 91.5 percent. Growth in population and consumer credit outstanding do not appear to account for the drastic increase in personal bankruptcy filings.

The primary objective of this study was to investigate the alleged causes of personal bankruptcy. Previous research has concentrated on classifying personal bankrupts by demographic characteristics rather than by cause.⁹ There is little information on why individuals seek adjudication in bankruptcy and the extent of their knowledge of the bankruptcy process.

The Columbus office in the Eastern Division of the Southern Court District of Ohio was the site for the study. This area consists of the metropolitan counties of Franklin and Jefferson (the cities of Columbus and Steubenville, respectively), the small city counties of Muskegon and Licking (Zanesville and Newark), and other rural areas. Nine hundred sixty-six bankrupts constituted the base of the study for analysis of financial data. A random sample of 152 bankrupts was interviewed to determine why these individuals sought voluntary adjudication in bankruptcy.

⁸It has been shown that published data exaggerate the number of personal bankruptcies by an average of nearly ten percent, for several reasons. First, all straight bankruptcies and non-bankruptcy cases filed under the Act are combined to arrive at the business-nonbusiness classification. This includes, for example, Chapter XIII cases which are not true personal bankruptcy cases. Second, the classification system is left to individual clerks who frequently misinterpret instructions. The total filings for nonbusiness cases include a number of those which are in fact business cases. Third, there is a duplication in the statistics because no notice is taken of companion case filings. See George A. Brunner, *Personal Bankruptcies: Trends and Characteristics* (Columbus, Ohio: The Ohio State University Bureau of Business Research, 1965).

⁹John J. Brosky, *A Study of Personal Bankruptcy in the Seattle Metropolitan Area*, Seattle: Retail Credit Association of Seattle, 1965; Robert Dolphin, Jr., *An Analysis of Economic and Personal Factors Leading to Consumer Bankruptcy*, Occasional Paper No. 15, East Lansing, Michigan: Bureau of Business and Economic Research, Michigan State University, 1965; Wesley D. Harms, *Some Aspects of Business Policies and Procedures in Relation to Personal Bankruptcy in the Wichita Area*, unpublished Master's thesis, Wichita University, 1961; Robert O. Herrmann, *Causal Factors in Consumer Bankruptcy: A Case Study*, Occasional Paper No. 6, Davis, California: Institute of Government Affairs, University of California, 1965; Grant L. Misbach, *Personal Bankruptcy in the United States and Utah*, Salt Lake City: College of Business, University of Utah, 1964; Samuel L. Myers, *The Consumer Bankrupt in Maryland (Preliminary Report)*, Baltimore: Morgan State College, 1961.

The following is a profile of the individual bankrupt. It should be noted that there is no significant difference between the characteristics of the bankrupts in this study and those in Brunner's study which encompasses 22,000 cases over a six-year period. (See footnote 1)

1. The average bankruptcy involves a family unit—either with a normal husband-wife relationship or with some type of recent marital trouble. Few single men or widowed persons seek adjudication in bankruptcy.

2. The family is young and includes two to three children. The husband is 25-29 years old.

3. The husband is employed in a blue-collar occupation that very often, because it attracts transient workers such as plumbers and truck drivers, is considered hazardous by a person evaluating credit risks. If not employed in a "dangerous" occupation, he works as a blue-collar worker in close contact and communication with others who have used bankruptcy as a solution to their financial problems.

4. The family is not established in the community; it moves often from rented house to rented house. Twenty percent of the bankrupts own property; however, they have little equity in it.

5. The family has established little evidence of thrift in handling of money. The typical bankrupt has shown no desire to maintain a credit rating—very few have bank accounts of any type.

6. Total debt of personal bankrupts varies from \$76 to \$99,999. However, the median debt is approximately \$3,780.

7. Interestingly, only 4 of the 152 bankrupts interviewed reported no family take-home pay in the year before bankruptcy. The range of income recorded was from 0 to \$24,000; the average was \$4,273. The distribution of income appeared to be relatively normal; that is to say, for 72.3 percent of the cases income ranged from \$2,000 to \$5,999.

The income of each bankrupt was compared with the debt of that individual to gain some measure of the burdensomeness of the debt. This investigation provided insight into whether bankrupts could pay their debts out of future income, assuming it was continuous, or whether the debt was intolerable. Approximately 16 percent of the bankrupts had total debt (excluding real estate mortgages) equal to less than one half of their annual income. Another 37 percent had debt equal to 50 percent of their income. In addition, 17 percent had debt

from 100 percent to 150 percent of their income, while 30 percent had debt greater than 150 percent of their income.

The consensus of the credit industry and U. S. Department of Labor budget studies is that a debt to income ratio of .30 to .50 or more is definitely burdensome, especially at the general income level of bankrupts. In other words, if a person contracts debts equal to 50 percent or more of his annual income, this is all he can be expected to handle; he needs the other 50 percent for food, rent, and clothing. Under these guidelines, 83 percent of the bankrupts definitely suffered from burdensome debt. The remaining (17 percent) with debt-income ratios below .50 were not overburdened and could have paid their debts over a period of two to three years.

Principal reasons behind decisions to file petitions in bankruptcy were: (1) a significant change in income caused by unemployment, seasonal employment, or personal injury—13.2 percent; (2) an involuntary assumption of debt incident to catastrophic events such as medical problems (18.4 percent), marital difficulties (25.7 percent), or personal liability suits and Acts of God (3.9 percent); (3) lack of prudent financial management leading to spending beyond capacity to repay (26.3 percent); and (4) an attitude system which consists in part of a lack of responsibility toward paying debts (12.5 percent).

It appears that over 50 percent of the bankruptcies examined were caused by conditions beyond the bankrupt's control, including a substantial reduction in income, unexpected medical expenses, marital problems, and personal liability suits. Slightly over one fourth of the bankruptcies were caused by lack of prudent financial management, a factor presumably within the bankrupt's control. Lack of financial management ability was characterized by a complete lack of sales resistance and no attempt to control the amount of credit buying. Bankrupts in this group overextended themselves even though they *intended* to meet their debt obligations.

In the remaining cases (13 percent) lack of responsibility toward debt repayment was found to be the primary determinant of bankruptcy. This is evidenced by the fact that 63 percent of this group could have repaid their debts over time but instead chose to seek refuge in bankruptcy.

Creditors' collection actions, contrary to some allegations, do not cause bankruptcy. At most they appear to be an ancillary factor triggering the petition filing. Similarly, no evidence was found that unethical attorneys' practices caused bankruptcy.

The findings yielded some implications for bankruptcy remedies. For example, an absolute minimum debt level of \$2,000 would eliminate 16 percent of the cases and affect only three percent of the debt. From a causal viewpoint, the eliminated cases would include largely those caused by marital trouble and unfavorable attitude.

A somewhat more flexible remedy would be to give the Referee discretionary authority in discharging bankrupts. Unnecessary cases could be screened out and placed under Chapter XIII. It is also recommended that: (1) all bankrupts be instructed in financial management before discharge; (2) community debt counseling services be expanded; and (3) creditors re-evaluate their credit limit policies and attempt to obtain better credit information. Changing of state laws concerning collections would not appear to be an effective solution. There is need for a larger study to concentrate on budgeting problems of bankrupts, attitudes toward debt and bankruptcy, and differences in state filings in terms of demographic variations.

2. Studies relating to improving education and training

a. Factors Affecting Patterns of Living in Disadvantaged Families, with Special Emphasis on Resource Allocation and Value Orientation

Francille Maloch and Ruth E. Deacon, Ohio State University

Objectives of Ohio's contribution to the interregional, interdisciplinary study are consistent with the general project: to determine the nature and interrelationship of patterns of living in disadvantaged families and factors influencing these patterns—(1) development analytical design: select and/or construct and evaluate indicators, indices, and measurements of patterns of living applicable to the study of disadvantaged families—(2) describe patterns of living and determine factors associated with these patterns—(3) ascertain the interrelationships of the patterns and the factors influencing these interrelationships.

Procedures for the study include development of an interview schedule and use of the interview in each of the cooperating states. Ohio will seek additional information on resource allocation and value orientation. The project is still in the early stages but plans for sampling and separate sections of the interview are being developed. Ohio will interview in 200-300 households having a head and at least one child aged 18 years or younger occupying a standard dwelling unit in low

economic strata counties (Appalachia) relating to: (1) *economic condition*—a description of internal operation of the household will be sought. Implications for welfare policies will likely result. Specifically, information will be collected regarding monetary income flow and stock of property; (2) *education and training*—a description of human resources should provide further information for program development. It will likely include education and training history, skills, employment status and history, potential earners, aspirations and attitudes regarding resources; (3) *housing and community services*—community resource availability, respondent knowledge and use will be examined. Housing expenditures will be studied in detail. The basic quality and current state of repair of dwelling units will be sought; (4) *health protection and care*—it is expected that health expenditures will also be examined in detail. The Appalachian region of Ohio has already been surveyed as to extent of available medical services—this project will examine extent of use of services and health expenditures; (5) *Ohio emphasis*—previous work has suggested a present orientation on the part of low-income families. (2) Ohio will pursue time orientation in relation to planning the use of resources. Instruments used by Rosen and Zurcher (6) are suggestive of types of measurement of time orientation which will be developed; the work of Berger (1) and to some extent Stark (5) appears useful for developing measures of foresight in planning.¹⁰

*b. The Intellectual Abilities of Rural Appalachian Children:
A Pilot Assessment*

Frank H. Hooper, West Virginia University

The initial phase of a Preschool Curriculum Development Project under the general direction of the Appalachia Educational Laboratory, Inc., required an assessment of the behavioral capacities of rural Appalachian children three to six years of age. Accordingly, a field survey was undertaken which tested 160 children (equal numbers of males and females), representing this age range, from Monongalia and Upshur Counties of West Virginia. The Upshur County sub-sample was 100 percent Caucasian, while the Monongalia sub-sample was 28 percent Negro and 72 percent Caucasian. The mothers of the children involved were given a comprehensive demographic child-rearing practices interview-questionnaire. The questionnaire included material designed to assess the general ecological and demographic information specific to

¹⁰Write to the authors for list of references cited.

the county in question, the environmental background conditions of the children involved, the parents' academic aspirations for their children, and a series of child-rearing scales and inventories. In general, the two-county sample might best be characterized as upper-lower-lower-middle class. Thirty-five to forty percent of the families in the two counties had incomes from \$2,000 to \$3,999. Fifty percent of the Monongalia County sub-sample had incomes under \$2,000. In contrast, 46 percent of the Upshur County families had annual incomes between \$4,000 and \$9,000. Considering the fathers' occupational category, 55 percent of the fathers worked at semi-skilled or unskilled jobs. Approximately eight percent of the sample had unemployed fathers while only two percent to four percent were white-collar workers. Ten percent of the fathers had less than a junior high education, 75 percent had an eighth grade education or better, and approximately 45 percent of the sample had finished high school.

The intellectual assessment battery was divided into two parts: one-half of the children received Battery A which consisted of the Peabody Picture Vocabulary Test, the Stanford-Binet Intelligence Test, Kagan's Matching from Familiar Figures and Draw-A-Line Cognitive Style Measures. The remaining subjects received Battery B which consisted of the Peabody Picture Vocabulary Test, the Illinois Test of Psycholinguistic Abilities, and the Frostig Developmental Test of Visual Perception. In addition, the five- and six-year-old children received a series of Piagetian Tasks designed to assess conservation of number, conservation of discontinuous quantity, unidimensional seriation, serial correspondence, multiple seriation, and multiple classification skills.

The general analysis which followed the field survey was designed to examine a number of related questions. Among these were the differential performance of the children at all age levels across the various tasks included in the pilot test battery. It was anticipated that the modal developmental profile might show differing strong points and weaknesses depending upon the particular cognitive or psychological capacities in question. In addition, the present sample was compared to their middle-class counterparts in other regions of the United States where the same psychological test had been given to approximately the same age ranges. The major purpose of the present results will be the creation of a basal information source for the production of curriculum emphases, goals, and related teaching strategies designed to optimally reach the Appalachian child. Later analyses will examine possible distinctions within the present subject sample such as male-female differences, relationships of the child's performance to

the mother interview-questionnaire data, and inter-item or factor analyses of the two test batteries.

The present sample's performance on the Peabody Picture Vocabulary Test was below the national average at every age level tested. This relative deficit is especially true of the female subjects. Age progression comparisons indicated significant differences between the 3 1/2 - 4 1/2 and between the 4 1/2 - 5 1/2 age ranges for the Peabody total raw scores. Eighty children were administered the Stanford-Binet Intelligence Test and in general the results are quite encouraging, e. g., the 5 1/2 sub-sample exceeded the national norm of 100. All the subgroup means were within the 90-100 "normality" score range associated with the standardization samples. In addition, the within group variances were not significantly different from the national norms. Considering the differential success of the present subjects on verbal as compared to performance subtasks within the Stanford-Binet test, in every comparison (3 1/2 - 6 1/2 years) for both sub-samples the children were more likely to successfully pass performance-type items than verbal tasks. For the total sample 63.5 percent of the performance tasks were passed versus 53.0 percent of the verbal items.

The present subjects' performance on the Frostig Developmental Test of Visual Perception reveals a mixed picture. The children's performance on the position in space and spatial relations tasks was relatively good. In contrast, performance on the figure-ground and form-constancy tasks was notably weak at all age levels except 6 1/2 years. These tasks have been cited by the test designer as particularly salient for the diagnosis of deficiencies relevant to reading readiness skills. In this regard, 40 percent, 80 percent, 50 percent, and 50 percent of the age groups included in the present sample respectively have perceptual quotients below 90, the cut-off point generally accepted as indicative of later reading difficulties.

Each of the various subtasks of the Illinois Test of Psycholinguistic Abilities was considered separately in the present analysis. Briefly, Auditory Visual Sequencing, Auditory Decoding, and Visual Decoding performances are relatively adequate for the present subject sample. Auditory Vocal Association and Visual Motor Association appear to be of intermediate difficulty for Appalachian rural children, and the male subjects do rather well on these tasks. The children's performances on the Auditory Vocal Automatic, Visual Motor Sequencing, Motor Encoding, and Vocal Encoding tasks reveal the greatest overall deficits. In general, decoding performance is superior to encoding and the present deficits appear to be vocal rather than visual. Memory

ability *per se* does not appear to be impaired. Motor Encoding, Vocal Encoding, and the Auditory Vocal Automatic tasks, in particular, demonstrate a sharply increasing decrement as the children get older. The present 3 1/2-year-old sub-sample shows no significant differences from the national standardization sample. On 30 percent of the comparisons, it exceeds the standard score values. This may be compared to the 5 1/2 and 6 1/2 year sub-sample performances which showed significant differences on every sub-task except Auditory Vocal Sequencing and Visual Encoding.

In general, the present subjects' performances on the Piagetian Tasks are encouraging. Thirty-one percent of the 80 subjects tested conserved on at least one of the conservation tasks. The conservation tasks were ordered Identity, Number, Equivalence in terms of increasing task difficulty. Performance distinctions between Identity and Equivalence conservation are in agreement with the theoretical statements of Elking (1967) and Hooper (1968), e. g., 75 percent of the subjects failed both of these tasks, 13.75 percent passed both tasks, 11.25 percent passed identity and failed equivalence while no subjects passed equivalence and failed identity. Males were superior to females on all conservation tasks at both age levels, and this was especially true of the equivalence conservation tasks. Analyses of the logical operations tasks indicated that unidimensional seriation and serial correspondence are well within the capabilities of the present subject sample. There was no discernible age progression for these tasks. A relatively high degree of interrelationship was found across the various Piagetian Tasks measured. In this regard, the conserving group differed significantly from the nonconserving group of subjects in multiple classification and multiple seriation skills. Stanford-Binet and Illinois Test of Psycholinguistic Abilities were also significantly related to conservation performance.

Performance accuracy on the Kagan Matching from Familiar Figures Test increased across the present age range. The 5 1/2 - 6 1/2-year old sub-sample performed significantly better than did their 3 1/2 - 4 1/2-year-old counterparts. The average initial response time (an index of reflective versus impulsive behavior) also increased across the age range tested. However, these differences were not significant. The average response times for the Draw-A-Line Motor Inhibition Task did increase significantly from 3 1/2 - 4 1/2 to 5 1/2 - 6 1/2 years of age. This age progression was most notable for the male sub-sample.

In conclusion, this initial assessment of the rural, non-farm Appalachian child reveals a picture of cultural diversity rather than uniform cognitive-intellectual deficits. Future research directed toward remedial

intervention programs should carefully specify the particular psychological abilities and capacities in question.¹¹

c. *Educational and Vocational Goals of Urban Youth in South Carolina*

Kathryn Powell, Winthrop College

The future of the youth of South Carolina is of great concern throughout the state. Such concern has been focused on the young people of the state, because youth under 20 years of age comprise 45 percent or more of the state's total population (Bureau of the Census, 1961). The success of youth in the modern, complex, and dynamic world is generally recognized as being dependent upon their becoming an educated and highly skilled citizenry. Further, ever-increasing educational levels are demanded in terms of present-day employment opportunities.

A better understanding of the educational and vocational goals of South Carolina's youth is needed. Information is also needed about factors that might possibly be related to the level of aspirations which young people have. Such factors may be the parents' aspirations and attitudes and the variables of sex, level of living, rural or urban background, and family size.

Research on the educational and vocational goals of youth in the South has been carried out in two projects of the Southern Regional Committee for Family Life. Cooperating in the projects numbered S-48 and S-48—Revised have been the Cooperative State Research Service of the U. S. Department of Agriculture, a consulting statistician, the administrative adviser to S-48, and S-48 technical committee members from Alabama, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, and Virginia. The report "Educational and Vocational Goals of Rural Youth in the South" (Southern Cooperative Series, Bulletin 107, September, 1965) has been published. The report of the study of urban youth is now in press. The South Carolina study herein reported was a contributing project to the regional S-48-Revised project on urban Southern youth (in press). The procedures established by the Regional Technical Committee of S-48 made possible a well-defined and much-needed research study of the educational and vocational goals of South Carolina youth. The data on South Carolina

¹¹Write to the authors for list of references cited.

urban, white youth were pooled with data similarly collected in the participating states to obtain seven-state analyses of the Southern region.

Information about educational and vocational goals of youth, goals held for youth by their parents, and the variables related to persistence or levels of aspirations is needed by school administrators, guidance counselors, and others working with youth in their efforts to inspire youth to aspire to high educational and vocational standards and to make available the needed opportunities educationally and vocationally in South Carolina.

Objectives. The purposes of this study were to determine for selected South Carolina urban ninth and tenth graders: the relationship between educational and vocational aspirations and the variables of (a) sex; (b) level of living; (c) rural or non-rural background; and (d) family size.

Sample. This report consists of results from two studies of South Carolina ninth and tenth graders enrolled in urban schools. The first study in spring, 1965, was of students in the predominantly Negro schools.

d. *The Study of Occupational Development in an Economically and Culturally Deprived Area.*

*Michael Tseng, Alvin Carter, and Donald Thompson,
West Virginia University*

Purpose. There has been a steady increase in the out-migration of youths who have adequate preparation for vocational and higher educational experiences, from this area. There is a high correlation between this out-migration trend and the general economic welfare of the area. The present studies, of which three are reported here, seek to uncover motivational, adjunctive-educational and Community Action agency participation variations among the youth of this poverty area.

Overall Design of Studies. From a random, stratified sample pool of over 1,000 students attending grades 9-12, plus an available sample of dropouts, a random sample of 250 boys was chosen for more intensive measurement using various objective, projective, and questionnaire instruments. The pool from which these subjects were drawn had been given a youth attitude battery which contained the necessary data for demographic and other breakdowns. The data were treated according to the designs of the specific studies reported here.

1. Levels of Achievement Motivation and Fear of Failure As Determinants of Some Vocational Behaviors of Adolescent Boys: Summary.

The primary purpose of this study is to investigate motivational aspects of adolescent vocational behaviors (i.e. interaction behavior between the individual and his work-related environment). Following McClelland's findings that crosscultural achievement motivation differences reflected the productivity of the culture, the general personality variable, n-Achievement, in association with another general personality variable, fear of failure, were used to identify four groups within the study sample. This sample (n=250) was selected from a total sampling pool of the youth attitude survey males. These groups were as follows: (1) high achievement—low level of failure (H-L); (2) high achievement—high fear of failure (H-H); (3) low achievement—high fear of failure (L-H); (4) low achievement — low fear of failure (L-L.) These groups were identified on the basis of test results using the Thematic Apperception Test, and the Mandler-Cowan Test Anxiety Questionnaire for high school students. At the same time, criterion variable measures were made on the following occupational behavior scales: (1) Occupational Prestige Scale, consisting of 20 occupations adapted from the North-Hatte Scale (OPS), Haller's Occupational Aspiration Scale (OAS), the Occupational Questionnaire (OQ). The latter questionnaire furnished information concerning the subjects' background and occupational choice. Occupational choices were according to both the skill-level ratings of the Dictionary of Occupational Titles (DOT), and the North-Hatte Scale, which is based on occupational prestige. These data were analyzed to test several hypotheses relating to the predictive use of achievement motivation measures and failure measures in determining the probable vocational behaviors of adolescent boys.

Both of these variables were demonstrated to be successful single and multiple predictors of some of the vocational behaviors measured. These mainly involve occupational choice, the degree of realistic evaluation of occupations according to their prestige level and their skill levels, as well as the subjects' occupational aspirations. It is suggested that when these two variables are combined with other social-psychological variables, markedly more criterion variance will be accounted for by the new combined multiple predictors. When vocational behaviors are considered in terms of the extreme groups (H-L and L-H), distinctive differences with regard to vocational behaviors are observed. The influence of achievement and anxiety upon vocational decision-

making processes suggest that the cultural, sociological, and psychological influences determining the development of motivation and fear of failure have wide-ranging effects upon adolescent and adult vocational behaviors.

2. Differences Between Adolescents Who Seek Counseling and Those Who Do Not — Their Socio-Economic Backgrounds, Personality Traits, Vocational Behaviors, and Relations with Parents.

The primary purpose of this study is to determine if differences exist between high school age adolescents who seek counseling and those who do not seek counseling. The dimensions investigated are the socio-economic backgrounds, certain selected personality variables, educational and vocational behaviors, and the subjects' relations with their parents. It is hypothesized that (1) subjects from the counseling group would have higher scores on occupational aspirations, self-esteem, achievement motivation, perceived parental interest, and better relationships with their fathers; (2) subjects who seek counseling would have a high socio-economic background; (3) subjects from the counseling group would show a lower fear of failure and less deviation from an ideal norm on the perception of the occupational prestige levels than subjects from the non-counseled group; (4) subjects from the counseled group would choose occupations with higher level of responsibility and more prestige and possess more clearly defined goals concerning occupations and higher education than would subjects from the non-counseled group. The same instrumentation as was used in the preceding study, plus Rosenberg's Self-Esteem Scale, Relationship with Father, and Parental Interest Index; other variables considered were the subject's age, race, grade level, father's and mother's educational level, father's occupation, and the perceived parental attitude toward education and occupations.

The results of statistical analyses of the data showed that significant differences ($p=.05$) were found between the counseled and non-counseled groups on the father's educational level, mother's educational level, achievement motivation, certainty-uncertainty of occupational choice, dropout-non-dropout ratio, and socio-economic class. As opposed to the non-counseled group, the counseled group was significantly associated with higher educational levels of parent, higher need for achievement, more certainty about section of career, less dropouts and higher socio-economic backgrounds. The findings suggest that counseling and guidance programs attract adolescents who are more affluent, more ambitious, and more success-oriented, and that the counseled group more nearly reflects the middle-class ideals and value structure.

It would seem that the subjects in the non-counseled groups were more needful of counseling in occupational and educational matters than were subjects in the counseled group. The implication is clear: counseling programs in this community are not attracting those adolescents who need help most. If guidance programs are to play a vital role in human resources, these programs must attract more students who do not presently seek help. Counselors should be aware that students from lower socio-economic groups are not likely to seek counseling aid of their own accord. Therefore, counselors should take initiative in establishing a helpful relationship with culturally deprived students.

3. Differences Between Adolescents Who Visited Community Centers and Those Who Did Not — Their Socio-Economic Backgrounds, Personality Traits, Vocational Behaviors, and Relations with Parents.

Purpose: A distinction must be made between the dependent and independent variables associated with evaluation of the Community Action Program in terms of its objectives in modifying the various behaviors of the youths who participate. Some of these behaviors are: occupational aspiration, occupational prestige perception, self-esteem, anxiety or fear of failure, occupational choice, etc. These would be considered dependent variables which may be influenced by the intervening variables of CAP. The independent variables associated with the assessment of these changes would be those such as the father's educational level, the mother's educational level, and the father's occupation, etc. The latter variables may be considered to be representative indices of socio-economic status and therefore can be used to define the target population involved in CAP. Once this is done, measurements of personality and vocational variables (dependent variables) will allow the determination of existing differences, class-wise, between those adolescent boys who visited community centers and those who did not, in terms of socio-economic backgrounds, relationships with parents, and certain personality and vocational traits.

Results show that in terms of the three socio-economic variables (father's and mother's educational level and father's occupation), the two groups differed significantly only on the father's level of occupation. The members of the group who participated in CAP tended to have fathers who had lower prestige level occupations than the group who did not take part in CAP programs. This seems to indicate that CAP activities are attracting persons from lower economic status. On the rating of occupational prestige, the two groups differed significantly in

their perception of the prestige hierarchy of occupations. The group that did not participate in the CAP programs ranked the prestige of occupations more or less in conformance with national and ideal norms as established by the National Opinion Research Center, whereas the group that did participate deviated more from these norms. Community Action Program activities proved to have attracted significantly more Negro boys and generally more non-dropouts in this community. The implication is that either there are not appropriate programs to attract high school dropouts, or the recruitment procedures used to involve dropouts are ineffective.

A validity and reliability study has been done on the short form (20 items) of the North-Hatte Occupational Prestige Rating Scale, which was originally composed of a 90-item list. The short form of this instrument was developed specifically for the occupational studies and is in many ways superior to the original North-Hatte instrument. It is much less time-consuming and far simpler for the subject to complete. The value of developing a short form of this instrument lies in the fact that perception of occupational prestige seems to be an excellent predictor for many different variables; e.g., n-achievement, social status, grade point average, etc.

e. An Analysis of the Intergenerational Changes Occurring in the Value Hierarchies of Southern Appalachian Families.

Janet O. Hutchinson and Carl B. Taylor, West Virginia University

This investigation is an exploration of intergenerational differences in the value hierarchies of the Southern Appalachian family by use of a stratified random sample of families residing in selected areas of West Virginia.¹²

Historically, many factors, such as relative isolation because of terrain, a relatively homogeneous population, and an economic structure which set the stage for rural living, have allowed the Southern Appalachian region to function essentially as a sub-culture with value hierarchies peculiar to itself and differing notably from those of the larger American society. In recent years, however, the Southern Appalachian region has

¹²This research was made possible by the combined efforts of Parkersburg Area Appalachian Center Office, County 4-H Extension Agents, Mildred Fizer of the State 4-H Extension Office, and Bruce John and J. P. Photiadis of West Virginia University Appalachian Center. The cooperation and assistance of these individuals is gratefully acknowledged.

undergone numerous changes. Technical advances in transportation and communication have reduced isolation, and economic changes associated with increasing industrialization have resulted in the migration of many workers from rural to more urban areas both within and outside the Appalachian states.

Since institutional changes are likely to be followed by shifting value orientations of the region's population, it is probable that the traditional values characteristic of the region are undergoing modification. Considering the family as both a primary preserver and transporter of the values held by its members, a comparison of the rank-order profiles of the values held by parents with those held by sons and daughters will provide one measure of the changes taking place among the population of the region.

The sample consists of 595 respondents: 98 fathers, 116 mothers, 184 sons, and 197 daughters, selected in 1966 from seven contiguous counties of west-central West Virginia. Each member of the two youth groups was matched with either his father or mother, and in no case was more than one parent from each family interviewed. The ages of the youth range from ten to 20 years, and the parents are concentrated within the 30 to 60 year range. The higher proportion of families in the sample with rural residences, 57.9 percent, corresponds with the approximate rural-urban distribution of the total population of the area. The mean highest grade in school completed by the youth is 9.2 years as compared with the mean of 10.7 years completed by the parents. The mean number of children in the family is 3.7. Of the 77 percent of those who replied to the question on income, 39 percent were in the modal range of \$4,000-\$9,000, with approximately equal proportions above and below. Of the household heads who responded to the question on employment status, 81 percent were employed full- or part-time and 14 percent were not employed. As to occupational classification, 31 percent were skilled or semi-skilled; 22 percent, white collar; 8 percent, farm owners; and 12 percent laborers.

The nine values selected for investigation are: (1) religion, (2) family, (3) friendship, (4) education, (5) achievement, (6) work, (7) recreation, (8) material comfort, and (9) country life. Rank-order profiles of these values were determined for each of the following categories: (1) fathers, (2) mothers, (3) sons, and (4) daughters.

Each of the participants was administered a questionnaire in which he ranked in order of importance statements which represented these nine values. The value which was ranked first in importance was given

the score of nine and the lowest a score of one. These values were stated differently in four separate sections; thus each could receive a maximum of 36 points and a minimum of nine. Total mean scores and index scores (the relationship of each value rating to the highest rated value category) were determined for each value for the parents and the youth to be utilized as a basis of comparison for the four groups. Differences in the ranking of the nine values among the four groups were tested initially for sex differences and this was followed by a comparison between the parents and youth groups.

Contingency analysis revealed no significant differences between the rankings of the nine values by the two parent groups. Both fathers and mothers ranked religion first, the family second, and education third in importance. Mean scores for fathers and mothers were, respectively, 31.0 and 31.5 for religion; 28.4 and 28.7 for family; and 23.1 and 24.0 for education.

Although fathers and mothers differed in order of values assigned to the fourth and fifth positions, the differences were not statistically significant. Fathers ranked work fourth and friendship fifth with mean scores of 22.0 and 20.0, respectively. Mothers reversed this order with a mean score for friendship of 21.6 and for work of 20.2. Country life was ranked sixth with a mean score of 15.6 for fathers and 16.2 for mothers. Material comfort was ranked seventh by both groups with identical means of 15.5. Both parent groups ranked achievement eighth in importance and recreation last. Mean scores for fathers and mothers were, respectively, 13.3 and 12.3 for achievement, and 10.4 and 11.4 for recreation.

To summarize, no significant sex differences between the parent ratings were found. The parents tend to follow a predominantly traditional pattern with religion and the family having very high positions in the value hierarchy while achievement and recreation are considered to be of least importance.

In the comparisons between the two youth groups, both ranked religion as being the most important of the nine values; however, daughters ranked it significantly higher (prob. .01) than did sons. Mean scores are 31.9 for the daughters and 29.8 for the sons. A significant comparison (prob. .05) was also found in the ranking in importance of the family. Daughters ranked this value second with a mean score of 26.7 while sons ranked it third with a mean score of 24.8. Sons ranked education higher than did daughters, second in importance with a mean of 25.1 as compared to a mean of 23.9 for daughters, who ranked it third, but this difference is not significant.

Both youth groups ranked friendship fourth in importance with mean scores of 22.9 for the daughters and 21.0 for the sons. Work was ranked fifth in importance by both youth groups, i.e., mean scores of 20.1 for the sons and 19.6 for the daughters. Although both youth groups ranked achievement sixth in importance, sons, with a mean of 16.8, ranked it significantly higher (prob. .05) than did daughters who had a mean of 14.5. Country life was ranked seventh in importance by both groups with sons ranking it somewhat higher (16.3) than did daughters (14.0). Both groups ranked recreation eighth with respective means of 13.4 and 13.0 for sons and daughters. There was also no significant difference between the two youth groups in the ranking of material comfort which was last in importance; i.e., sons' mean 13.2, daughters' mean 12.7.

In summary, no significant differences were found in the ranking of education, friendship, country life, work, recreation, and material comfort. Daughters ranked religion and the family significantly higher than did sons, while sons ranked achievement significantly higher than did daughters.

Parents ranked material comfort significantly higher (prob. .01) than did the youth. While parents ranked this value seventh in importance, it was ranked ninth by both sons and daughters. Parents and youth also differed significantly (prob. .05) in the ranking of achievement, i.e., sons ranked this value sixth while both parent groups ranked it eighth. The two youth groups, who ranked recreation eighth, ranked this value significantly higher (prob. .05) than did parents who ranked it last. Sons ranked recreation significantly higher (prob. .01) than did both parent groups. Although daughters ranked recreation significantly higher (prob. .05) than did the fathers, they did not differ significantly from the mothers' ratings.

Thus, we find no significant parent-youth differences in the ranking of religion, education, work, friendship, and country life. Parents ranked the family and material comfort significantly higher than did youth, who ranked achievement and recreation significantly higher than did parents.

These research results indicate that intergenerational changes are occurring in the value hierarchies of the Southern Appalachian family, with youth tending to be less traditional than parents. Parents following a traditional pattern ranked religion and the family very high in importance and achievement and recreation very low. Youth, in contrast, ranked the family significantly lower and recreation and achieve-

ment significantly higher than did parents. There is also an indication that sons are changing more rapidly than daughters as indicated by the significantly higher ranking of religion and the family by daughters and of achievement by sons. This initial step in the analysis of inter-generational change in values will be followed by studies involving the parent-youth profiles in which the role of such factors as age, socio-economic status, religion, orthodoxy, education, and rural-urban differences will be examined.

f. The Northern Virginia Pilot Project in Community Education.

Dr. Donald R. Fessler, Virginia Polytechnic Institute

The Northern Virginia Pilot Project in Community Education was a two-year operational research project sponsored jointly by V.P.I. and the University of Virginia on funds from Title I of the Higher Education Act of 1965. It was conducted in those four counties and three cities of Northern Virginia which are a part of Metropolitan Washington to determine the most effective manner in which a state-wide training program could be organized to help citizens cope more effectively with the manifold problems of their urban environment. The relevance of the findings to Appalachia is that the procedures which the experiment indicated to be most effective relate to people generally and are equally applicable to rural or urban populations and to people at all socio-economic levels.

There were three basic training procedures used in the project. The first consisted of exploratory sessions with small groups of individuals interested in a given problem. These people analyzed the problem, isolated the different factors that contributed to it, and then identified those individuals, agencies and organizations within the community which should be involved in solving it.

The second training activity was a one or two-day problem-solving workshop, set up to include all of the people identified in the exploratory sessions. At these workshops the participants were divided into small discussion groups according to the aspect of the problem in which they were most interested. Each group defined its phase of the problem, identified the situations that needed to be changed, set a goal for each situation, listed the barriers that needed to be overcome before the goal could be achieved and then developed recommendations for an action plan and an evaluation plan for its accomplishment, being sure to include the assignment of responsibilities for getting the job done.

In many cases the workshop participants recognized at the start their own inability to work together effectively in groups. In the case of some of the more sophisticated individuals, this was due to operating professionally in agencies or organizations where group activities were traditionally conducted on a "chain of command" basis which is inimical to voluntary groups, operating horizontally; in other cases, usually at the opposite extreme of the socio-economic scale, it was due to total lack of experience in cooperative group activity. As a consequence, the third training activity consisted of day and a half workshops in dynamic group procedures in which the participants learned to work more effectively in groups.

A fourth activity developed in the Northern Virginia Project as a result of its training activities. This was the setting up at the jurisdictional level of civic forums whose membership was made up of representatives of organizations that generally held differing attitudes on public issues. These forums met monthly to discuss timely questions. Usually a speaker was asked to prepare and present a paper on a given problem. A panel of citizens with diverse attitudes on the problem questioned the speaker or presented opposing viewpoints. Then the entire forum membership was given a chance to participate. The forums had a rule never to take a stand as an organization on any issue but left it up to the individual members to take back to the organizations they represented their reaction to the material covered. The forums were member organizations but always invited to their meetings non-members of the jurisdictional government.

As an operational research project the Northern Virginia Pilot Project did not set out to prove anything. It was set up to try different approaches and then to recommend the ones that proved most effective in getting different aspects of the program organized. As a consequence, the recommendations cover a range of activities. These included the following:

1. Within a metropolitan area it was found best to organize training activities on a jurisdictional level, that is in counties or cities, since it is at this level that most decisions are made. Only occasionally did the training cut across jurisdictional lines and involve people from the entire Northern Virginia area. In rural parts of the country a beginning should be made at the county or city level, broadening out to regions when problems common to the larger area are identified.

2. In identifying the leadership at the jurisdictional level the cooperation of the county or city officials should be sought. In some

cases they will welcome the chance to achieve greater citizen involvement and will give invaluable help. In other cases the reaction will be such that care should be taken to avoid depending on them for a "go ahead" signal. It should be taken for granted that the project will be organized regardless of their reaction.

3. The leaders of community-oriented organizations such as civic federations, League of Women Voters, American Association of University Women, sometimes Chambers of Commerce, along with newspaper editors, are usually the best sources for names of effective leaders of the community.

4. Since institutional leaders are often concerned with preserving the prerogatives of their institutions, they should not be involved just as a matter of course but only when it becomes clear that, as individuals, they are essential to the development of the program.

5. In setting up training activities, it is better to rely on the sponsorship of an institution of higher education or a neutral outside agency (such as Title I of the Higher Education Act of 1964) than on that of local organizations or agencies. The latter will invariably have a reputation locally for levels of "leader" training which may be either too sophisticated or too elementary for the calibre of individuals who ought to be trained.

6. The workshops in dynamic group procedures which train individuals to operate more effectively in groups are least beneficial when set up for members of a given organization. In these the participants generally are concerned about finding simple solutions to specific organizational problems and invariably fail to absorb the broader principles of group process the application of which would minimize their difficulties. When representatives of many organizations are involved together in workshops at the community level, this difficulty seems to be overcome. Since church members often participate in various other organizational activities, workshops organized by local churches are least affected by this principle.

One of the major findings of the Northern Virginia project was that an outside agency, having no ties to local institutions except possibly to an institution of higher education but serving primarily in a citizen-training capacity, can be a very effective catalyst in bringing about better communications between community leaders and lead to a readier solution of common problems.

Institutions, agencies and organizations tend in time to build up an institutional encrustation of prerogatives, spheres of influence and vested

interests that inhibit their cooperating at the community level for the solution of community problems. The Northern Virginia Pilot Project demonstrated in all of its activities that it could involve the representatives of these agencies in various kinds of training that invariably resulted in greater communication and the minimization of institutional barriers.

3. STUDIES RELATING TO DEFINING AND ANALYZING POVERTY AND HOW TO REACH AND WORK WITH THOSE IN POVERTY AND THOSE IN ILL HEALTH

H. Max Miller, University of Georgia

a. The Definition of Poverty in North Central Georgia: An Analytical Assessment of the Social and Economic Characteristics.

This paper is based on the findings and implications of a study of Towns County, Georgia. The purpose of the study was to inventory and assess economic and social factors affecting rural adjustment and change. Two methods were used to accomplish this objective. First, a thorough survey of published materials in such sources as the Census Reports and other agency publications was made. The second method was to conduct an extensive exploratory field survey of leaders and local residents of communities through the county. The research was aimed at identifying the concepts necessary to understanding resource development and change and assessing the factors that affect change. A thorough knowledge of the social organization and culture of the county (and area) as well as relevant demographic data was obtained through this procedure. It is from this particular social and economic perspective that elements of the social organization and cultural environment of this Appalachian county are brought to focus upon particular aspects of the nature and definition of poverty.

Existing evidence suggests that the definition of poverty is a relative matter. The success or failure of programs of change (such as those designed to alleviate economic depression) is often influenced by factors related to the social organizational and cultural environment. The specific area of concern in this paper is whether a belief system and mode of living exists that produces a pattern of behavior that is learned by people in communities where conditions are economically depressed and sometimes extremely harsh. Is poverty a part of the culture in the form of cultural beliefs about the possibility of change?

The assumption is that belief systems and resulting patterns of behavior are part of the way in which individuals adjust to the reality of

situations and specifically to their environment. To the degree that this assumption is correct, then these forms of behavior would be ingrained in the culture and evidenced in the social organization and in individual behavior patterns. Belief systems that sometimes appear to represent apathy (and are manifested in unemployment and improper resource utilization) could be culturally prescribed and would be quite realistic in context. These belief systems are adaptive to a certain environment and in some instances, may be survivals from conditions that existed in the past. Cultures, moreover, are built over long periods of time and often contain belief systems that *are* survivals of the past. Belief systems and resulting behavior patterns are designed to allow individuals to live in their own particular environment conforming to the manner in which they perceive it. If an individual lives in a highly deprived environment, he will be taught practices and have expectations that will allow him to adapt to deprivation. Generally in learning how to *live* in an environment, the individual doesn't learn how to escape from it.

Change can involve factors of personality, the social organization and the culture. It also involves a knowledge of what is considered desirable and the steps that should be taken to attain it. The perceptions of poverty by others from differing environments, classes or groups may be quite different from those in many types of communities and neighborhoods. It is possible that belief systems centering around the possession of material good furnish individuals with an adjustment to the reality of their environment. This is to say that levels of possessions and styles of life which engender conditions and patterns of behavior defined as undesirable can be imbedded in the culture of a community and transmitted routinely to its members as a means of adapting to a set of environmental conditions.

In examining the theoretical assumption, a number of relevant considerations concerning the economic level and the culture and social organization of the county should be brought into focus. Comparatively, Towns County is a low income county, and is sometimes described as the "poorest county in Georgia." On the basis of formal income statistics computed in terms of family income, or similar measures of depression, county residents would fall lower than slum dwellers. On the basis of published statistics, one would expect to find an area characterized by blight, hunger, ill health and ignorance. Contrarily, after observing and documenting levels of living and styles of life in Towns County, rather than finding the expected conditions, one finds that residents of the county evidence levels of living that are primarily "middle class" in

nature. In the implementation of the research and the interpretation of the data, a number of factors relating to this apparent contradiction in the definition of economic depression become evident. These explanations are centered primarily around the factors of the culture and the social organization of this county and area.

A prime consideration is that the county and its residents evidence the survival of a subsistence economy which is closely linked with the survival of a family kinship system. In other words, residents are not entirely dependent on money income for their level of living. Individuals, through the production of goods and services and through exchange relationships with their kin or neighbors, afford themselves of a level of living that can either be supplementary to or serve as a replacement for money income. While employment data for the county (which can be misleading due to current methods of defining employment) are not indicative of extreme unemployment, published data do indicate that skill, wage and income levels are low. In essence, an impression of a county characterized by individual poverty and general economic depression is given. The point is, however, that even though skill and wage levels are low, no credit is given for self-support activities. In the true folk sense, life, work and activities blend in together, and an individual is a part-time merchant, a part-time carpenter, a part-time farmer, etc. Towns County has many cultural and social elements that approximate and represent the remnants of a folk society. County residents tend, in the folk tradition, to look more at things as resources for a level of living and have cultural and social values and orientations that are utilitarian in producing resource goods and services.

Within this framework, the often voiced opinion of many individuals that they're "no better off by working" can be understood. Obviously, varying systems produce the same level of living. An individual might, in fact, have to work much harder for wages in order to produce the same level of living that he obtains from the subsistence form of work.

In accounting for the existing level of living in the county, it is necessary to assess and specify some of the cultural values and beliefs that exist as social-psychological resources.

The ownership of land is a value that assumes prime importance in the county. In a social system that is strikingly less consumption oriented than many others, the possession of land or other real estate, even in small quantities, has symbolic meaning for the past, is utilitarian for the present and is closely related to perceptions of the future. One explanation for the desirability of land and the security engendered by land

ownership is the tendency for value to be placed upon objects of lasting and unchanging nature. A second, more important explanation, is that land is the one dependable source of subsistence or income, is symbolic of place and area and gives identity to individuals.

In a relatively isolated area where the use of leisure time has tended to be an individual pursuit, the absence of highly developed forms of recreation is not striking. Athletic and culturally related activities are few in number and occupy small amounts of time. Sport endeavors, such as hunting and fishing in the many lakes, fields and forests, and other related activities are regularly pursued. Also, a large amount of leisure time is devoted to personal leisure such as crafts, handiwork, and music. These types of activities and the sports activities are utilitarian in that they are both recreational in nature and often productive of income, goods and services. They serve the added utility of producing rather than expending income.

Kinship units and locality groupings are closely structured and are linked to kinship units and social networks throughout the county and area. They appear to specify and delimit the "field" of interactions and prescribe modes of thought and action. Many acts of mutual assistance, swapping of tools and labor and "arranging" of loans is carried out through the kinship unit and locality group. These types of associations are engaged in often and willingly and are functional in utilization of excess or leisure time. Also, these pursuits do not lead to the expenditure of money, but specify an exchange system that is different than that in an urbanized society.

The norms regarding money and its use are clearly evidenced by the types of possessions of individuals in the county. In a general way, possessions have a tendency to be functional and utilitarian in nature, relatively simple in style and few in number. Accordingly, individual tastes tend to be simple, functional and utilitarian with reference to consumer goods and services. The multiple utility of trucks as work vehicles and family conveyances as well as the multiple utility of many home produced goods attests to this fact. Money tends to be used for "investment" purposes rather than for "consumption" purposes. A comparatively small amount of money is used for expenditures at the personal and individual level, primarily because money does not exist abundantly and because other needs and expenditures assume greater priority. Money for recreational pursuits and personal interests tends to be expended on participational objects such as hunting equipment or string instruments. Expenditures of this nature are expedient and

necessary because of the relative isolation from areas or centers where commercial entertainment exists and because these possessions tend to be objects that have utility, value and are desirable and can be sold if the need arises.

This research illustrates that alternative systems of work behavior can produce the same level of living. One system of work behavior is organized in terms of a money economy and industrial employment, while another system of work behavior involves a subsistence combination of different kinds of employment that surrounds the kind of agricultural setting existing in Towns County. Given this fact, what happens in terms of social change is as follows: by industrializing the area and converting it to a money economy, it would be possible to raise the level of income in the county and simultaneously reduced the level of living.

It would be somewhat irrational for individuals to choose a system of work behavior that would reduce their level of living or a system of work behavior that costs them a greater expenditure of effort for the same level of living. If we look at the city ghetto and try to explain why people on welfare payments do not look for jobs, the same reasoning can be applied. These are individuals who have two alternative ways of achieving a ghetto level of living and one costs less in terms of the expenditure of time, effort and energy than the other. Thereby, it would be a perfectly rational choice to choose the one that requires less effort. Again, if we ask why farmers go to work in factories and stay there for a while and then say, "I'm not going to work there anymore," the same explanation will apply. That is, they do not see a significant increase in their level of living occurring as a result of getting a higher income. It is in the level of living that the increase counts, not in how much money a person receives. One rejoinder to this particular interpretation is, "that it is just the cost of living in the two sets of circumstances that is *really* involved." However, in reply to this notion, it could be pointed out that one cost of living is measured in terms of unpaid family labor, or unpaid effort that the individual expends on his own consumption. In the other case, costs are measured in terms of dollars. The cost of living in the two cases might be equal under a subsistence economy and a money economy with the cost of living measured in comparable terms. In other words, if the efforts of individuals in canning food or doing this type of subsistence activity were converted into money, we might find that the costs of living were the same in both cases.

The prime implication of these findings is that poverty should be measured by the level of living and not by income alone and that factors relating to the culture and social organization of specific areas should be taken into account in ascertaining levels of living.

a. *Evaluation of Poverty Programs*

Dr. Homer C. Cooper, University of Georgia

This paper will discuss two interrelated aspects of evaluation of poverty programs: (1) reasons for the increasing emphasis today on program evaluation research and (2) problems in the relationship between the program administrator and the evaluation researcher. Although my discussion will not be directed toward poverty in Appalachia specifically, I believe that many of the following comments are relevant for the evaluation of Appalachian poverty programs.

Increasing Emphasis on Evaluation. Our present decade has witnessed an enormous increase in evaluation of programs of all kinds, including poverty and poverty-related programs. Increase in the amount of program evaluation research has been exponential rather than linear. There are at least four reasons for this increasing stress on evaluation of poverty programs in particular:

1. During the administrations of Presidents Kennedy and Johnson, the War on Poverty has introduced new objectives and new programs to meet these objectives. Whereas progress toward some of the earlier objectives involving treatment, rehabilitation, caretaking, and welfare payments was relatively easily measured, progress toward more recent objectives stressing prevention, training, and changes in self-concepts require more subtle, or at least different and unfamiliar, kinds of measurement. That is, alleviation of an obvious symptom is usually more easily determinable than identification and eradication of the causes of a symptom. In addition, many of the new objectives have required new community mobilization structures, "maximum feasible participation of the poor," and the enlistment of private agencies and volunteer citizens not traditionally involved in the struggles against poverty; and the determination of their effectiveness has proved to be more difficult than measuring the consequences of earlier efforts, which frequently involved specific agencies attempting to accomplish narrowly defined changes with respect to specific unfortunate individuals. Old measures, such as number of cases processed, frequently are no longer adequate.

2. The large number of new programs to meet new objectives has resulted in greatly increased competition for funds and skills. Evaluation research data constitute important ammunition in the battle for funds and other scarce resources. Unfortunately, a program which shows quick — that is, within one fiscal year — and easily measurable results probably wins more than its share of resources in competition with long range programs which require several years to produce significant and demonstrable results. For example, Head Start commands a disproportionate share of OEO funds, valuable though Head Start undoubtedly is.

3. Our citizens today are better educated and more sophisticated than their parents were. Their representatives in Congress, legislatures, and city councils and on school, hospital, welfare, and OEO/CAP boards are better qualified to judge what constitutes “evidence” of program effectiveness. Many are familiar with PERT and PPBS, for example. Furthermore, the new emphasis on participation of the total community in poverty programs is resulting in these sophisticated citizens’ taking personal interest in poverty programs; they no longer just pay the bills; they know the score.

4. More persons with evaluation research skills are now available, although still in short supply, and our governmental offices and private organizations are more accustomed to using outside evaluation consultants and incorporating the resulting data into organizational decision processes. The mounting of large interdisciplinary efforts has also included use of a wider variety of evaluation personnel; the old tests-and-statistics specialist, for example, is no longer perceived as the only person who can evaluate an educational program. Head Start programs are as frequently evaluated by social workers and sociologists as by educational measurement specialists. The day when the psychologist or sociologist was preoccupied with “science” and sneered at practitioners and professional schools is passing. They too are now where the action is. Social and behavioral science research institutes, of which the Institute for Social Research at Michigan, National Opinion Research Center at Chicago, and Bureau of Applied Social Research at Columbia are only three of the largest, are staffed by problem-oriented research generalists with broad experience. The universities of the Appalachian and Southern regions, traditional strongholds of poverty, are beginning to support modest social and behavioral research institutes. The Social Science Research Institute, with which I am affiliated at the University of Georgia, is but one example in our part of the country. Having examined some of the reasons for the increasing insistence that poverty programs

be evaluated, I shall turn to some of the difficulties which arise when program evaluation research is undertaken.

Administrator Versus Evaluator. When the action-oriented administrator and the research-oriented evaluator meet, sparks sometimes fly. Their misunderstandings frequently result from the fact that they have been trained in different disciplines and their uses of and attitudes toward research and data differ. Although administrators and evaluators are usually generally compatible, they can disagree. My observations concerning those difficulties which arise to at least some degree in most administrator-evaluator relationships are:

1. *Action versus research.* The administrator who has won, at last, his OEO funding battle wants to act *now*; hungry children cannot wait. He sees needs in the community and "knows" what must be done. His attitude toward evaluation research may be that we already know more than we are putting into practice and that "the road to inaction is paved with research reports." The administrator's emphasis on immediate action and his intolerance of the delays involved in careful research may also be reinforced by a belief that in the past he has been almost alone in his fight for the poor, that academicians have been slow to support his efforts, that they haven't really cared about the unfortunate, that they are now jumping on the poverty program handwagon only to *study* the poor, not to help them. He may also question whether the unusual researcher whose heart is in the right place has had enough "practical" experience to be of any real assistance to his efforts.

The evaluation researcher, on the other hand, cannot see how the administrator can plan and execute effectively, particularly over the long haul, without collecting the sophisticated data necessary to determine which program components are effective and which ineffective. What the administrator labels "procrastination," the researcher calls "planning data" and "assessment." The researcher is a firm believer in Cooper's Dictum, pronounced in the early days of OEO: "1974's war on poverty is going to be fought with 1964's weapons unless evaluation research is introduced *now*." He may still be smarting from the utter contempt with which Sargent Shriver and his action-oriented associates have viewed universities and academicians. He may also firmly believe that many of OEO's current difficulties with the Congress and public result from lousy data rather than an unworthy cause, that OEO *has* been effective but cannot demonstrate it.

2. *Research and values.* Another area of conflict between administrator and evaluation researcher may arise from the fact that *Admini-*

strative hypotheses involve testing whether a program is "good" or "bad" as defined by the administrator's own attitudes toward the several potential consequences of the program outcomes and negatively toward others; programs which reduce hunger, result in higher levels of employment, increase participation of the poor in community decision making, contribute to desegregation, etc., may be viewed by him as "good" outcomes, whereas programs which are less effective in these respects are "bad" in terms of his personal or organizational standards.

On the other hand, the academician, although willing to neglect other duties to serve as an evaluator and also wanting "good" things for the poor, is accustomed to testing *scientific* hypotheses, in which the goal is understanding social and behavioral phenomena and the researcher, *in his role as a scientist*, not as a citizen, is supposedly objective and does not take sides with respect to findings. Science pursues truth wherever she leads; and in this pursuit only *methodological* values — objectivity, validity, reliability, reproducibility, parsimony — can legitimately affect his decisions.

The scientist is an observer; the administrator, a rooter. The former wants to be objective; the latter has objectives. These differences in value orientation toward evidence and data may reconfirm the previously mentioned suspicion of the administrator that the evaluator's primary interest is in studying people and communities rather than helping them. The researcher may, in turn, contend that the administrator's opposition to formulation of specific and testable program objectives and refusal to support "good" evaluation research design and measurement is due to unconscious fears that the program into which he has poured so much effort and "knows" will work may not work after all. Even where the circumstances of the poor are obviously improving, the researcher may suspect the improvement is due to social forces other than the OEO program, or even *despite* the OEO program, and knows that only a sophisticated research design determines casual relationships between programs and consequences.

3. *Research design and methodology.* The conflicts concerning action versus research, and over values concerning program outcomes, can be sufficiently severe to significantly affect the evaluation research design and the specific methods used to measure the major variables. Examples of the kinds of effects administrative considerations may have on evaluation are: (1) the use of experimental and control groups will be impossible if the administrator insists that all of the poor participate in all program components; (2) the administrator may require that the evaluator hire and train residents of the disadvantaged area rather

than "better qualified" graduate students to conduct the interviewing, coding, testing, or other research operations; (3) the administrator may be so eager to bring the advantages of the program to the poor that he will not delay implementation sufficiently to permit the researcher to administer the preprogram measures which are essential to the classical before-after evaluation research design; and (4) the administrator may forbid the administration of certain measures which he fears may offend area residents or place severe limits on the *total* quantity of data to be collected if he believes a prominent data collection operation will destroy his relationship with the disadvantaged.

Conclusion. Adjustment in the relationship between administrator and researcher should be dictated, by the following considerations: (1) action programs should determine the shape of evaluation research designs and measures, not vice versa; (2) however, the administrator must recognize that he is going to find it increasingly difficult to obtain community support and funds if his program planning and decision making are not based on high-quality research, especially evaluation research, and that good research flourishes only within certain kinds of administrative and program arrangements; and (3) the researcher can live with his scientific conscience if the compromise research designs result in decision data which are better than no data at all, but must terminate the relationship with his client if requested to collect data which would prove misleading or worthless. My own experience has been that administrators can learn to (1) incorporate evaluation data into organizational decision processes and (2) ask increasingly sophisticated research questions and accept the program conditions necessary to implement the more complex research designs and measurement techniques required to answer these questions.

Evaluation research for administrative decision purposes, however, must not supplant *basic* research into the problems of the poor or the kinds of institutions, administrative structures, and programs necessary to alleviate poverty.

c. Experiment and Evaluation in Reaching Those in Poverty.

Ethel Vatter, Cornell University

Historical and economic factors have brought wave after wave of low-income and unskilled people to the major cities of our country and today millions are concentrated in slum-ridden communities. In more recent years, many have come from rural Southern communities, in-

cluding Appalachia. Of the 8.1 million people living in New York City, more than 1.7 million live in slum areas. Nearly 1 million more live in deteriorating neighborhoods threatened with housing blight. These families are trapped in a vicious cycle of frustration, despair, and apathy.

Despite a plethora of programs and services for the poor, there still remains a large number of unreached families who need help with problems of managing their homes and raising their children. An estimated 5 percent of residents of existing public housing and a large number of low-income families awaiting assignment to new public housing represent the potential participants in the service-evaluation program described in the pages that follow.

The Cooperative Extension Service of the New York State College of Home Economics (Cornell University) has already accepted the challenge of working with the economically and culturally disadvantaged of the state. Programs in Buffalo, Rochester, Syracuse and in the Albany area, as well as in rural portions of the state, have included training, teaching and visiting homemakers and home health aides, working with Head Start parents, public housing tenants, adult basic education groups, and others in neighborhood centers. Cooperative Extension expertise lies in the areas of home and family care, and its experience has led to the conclusion that *indigenous subprofessionals, when trained by qualified home economists, can do an effective job of teaching homemaking skills to multi-problem families.*

A unique aspect of the proposal is the inclusion of evaluative research so that information will be available during and after the program concerning changes in homemaking and associated behavior that can be attributed to the action program.

The combined service (action) and evaluation (research) program was developed for teaching home economics skills to 1320 low-income, urban families living in three housing areas in South Brooklyn. Two areas are public housing projects and a third is a dilapidated housing area nearby. The target population contains a mix of Negro, Puerto Rican, and white families who are experiencing difficulties because of unacceptable housekeeping practices, failures in money management, and general inability to cope with home and family.

Teams made up of home economists and social workers will train 72 residents of the area, in groups of 8 each during 9 two-month training periods. These people will be subprofessional staff members and

will be called "service homemakers." Trainees will be selected on the basis of potential ability and empathy needed to help others learn to cope with home management problems.

After the training period each group of 8 service homemakers, together with its designated social worker, will work for 6 months with 40 families (approximately 5 per service homemaker) whose housekeeping and home management practices have brought them to the attention of their housing and tenant associations and their neighbors.

The service homemaker will be expected to work with the families on homemaking problems that the family regards as most urgent, not by doing domestic work for the family but by helping, teaching, demonstrating, and by encouraging participants to utilize their own abilities as well as public resources outside the program. Service homemakers will have access to guidance and counseling and in-service training from both social workers and home economists working on the program.

Evaluation (research) will be conducted simultaneously with the service (action) program and for some time afterwards, in order to determine to what extent and at what cost the program has achieved its stated goals of changing behavior, training for employment, and demonstrating the applicability of modified Cooperative Extension techniques to an urban setting.

d. Relationship of Maternal Health to Family Solidarity among Low-Income Families in 28 Appalachian Counties

*Dr. Ruth Deacon, Francille Maloch, and Mrs. Ann Bardwell,
Ohio State University*

Isolation and economic dependency have been said to characterize Appalachia's low-income families. Facilities and resources for health, education and welfare appear limited in quantity and quality. A relationship between low-income and chronic disease or physical impairments has been, and continues to be, noted. If chronic illness is present, the likelihood of more than one person in a family being chronically ill or impaired increases. Rural residents report more ill health and more often suffer from illness. More than 10 million women between the ages of 15-54 are physically handicapped or suffering from some kind of chronic condition.

This investigation focused on families with high demands: a chronically ill mother, financially disadvantaged and residence in Ohio's

depressed Appalachian region. Due to the lack of definitive norms relating to the functioning of low-income intact families, a group of low-income families in which the mother was not chronically ill was included for comparative purposes.

PURPOSES AND OBJECTIVES:

1. To describe the situations of low-income families, with and without chronic maternal illness or impairments, in Ohio's Appalachian area.

2. To examine patterns of functioning, both interactions and transactions, of families with and without chronic maternal illness or impairments.

3. To describe families with chronic maternal illness, or impairments, including adjustment of family members to the illness or impairment, and the effects of such on family solidarity and stability.

4. To inventory the family-serving resources of Ohio's Appalachian counties.

Sample: 402 low-income intact families with at least one child under 16; half having mothers who were chronically ill and half with mothers apparently in ill health from 8 of Ohio's Appalachian counties were interviewed in the spring and summer of 1966. Of these families, 65 percent lived in rural areas, 10 percent in villages, and the remaining 25 percent in urban places.

Households without chronic maternal illness were randomly selected from poverty areas identified by departments of health and welfare and the cooperative extension service in each county. Families with chronically ill mothers were randomly selected from combined lists of mothers identified by local health and welfare departments.

RESULTS:

Economic Situation of Sample Population. Families were classified by money income based on whether or not the past three months' receipts were the equivalent of \$1,500 per year for a family of four (one-half the \$3,000 poverty line), equivalent of \$1,500 to \$3,000 per year for a family of four, or the equivalent of \$3,000 or more per year for a family of four. Twenty percent of families with mothers without chronic health conditions were in the lowest income category. Over 40 percent of families with mothers with chronic conditions were in this category, with public assistance payments as their major source of income.

The largest percentage of fathers in both groups were unskilled laborers. More than half the fathers in families with chronically ill mothers were unemployed the week before the interview while a similar proportion of fathers in families where the mother was not chronically ill worked a full 40 hour week.

Education of Parents. In general parents in both groups of families had low levels of educational attainment. Mothers and fathers in families with chronic maternal illness had less education than those in the control families. One-fourth (66) of the fathers had less than 7 years of schooling, whereas one-sixth (30) of the fathers in the control families reported this low level of educational attainment. The modal category for fathers in both groups was completion of junior high school.

Mothers were slightly better educated. One-fifth (43) of the mothers with chronic conditions indicated less than 7 years of education; only 15 of those without a chronic condition indicated this level of educational attainment. The modal category for mothers with chronic conditions was the same as their husbands,—junior high school but the modal category for mothers in the central group was partial high school.

Housing Conditions of Sample Population. More than 90 percent of all families in the study occupied single family dwellings showing signs of blight, lack of plumbing facilities, and crowding. (X persons per room = 1.19) One-half of the homes were deteriorating or dilapidated; but only 10 percent of the families were living in homes where the original construction appeared to have been inadequate.

The majority of all families (52 percent) were renters paying an average monthly rent of \$29.78. Almost 40 percent of all families reported owning or were in the process of buying their home having an average monthly payment of \$42.14. Less than 10 percent of the families received rent-free housing.

HEALTH STATUS OF FAMILIES

Presence of chronic conditions or impairments. The 201 chronically ill homemakers reported a total of 375 chronic conditions ($X = 1.87$). Of this group, 17 mothers were identified as mentally retarded or having a speech defect by the referral agency; thirteen mothers had another chronic condition or impairment.

Mental or nervous, peptic ulcer and other digestive, heart and genitourinary conditions were the four leading causes of maternal ill health. More than a third of the mothers (36 percent) reported mental

or nervous conditions. The majority of conditions had been known for a period of usually more than a year but not more than 10 years.

A small number (16) of the mothers were unable to keep house at all. However 90 percent of the group reported limitation in the amount or kind of housework they could perform.

Paternal ill health was reported by 126 of the fathers in families where the mother was chronically ill. One-fourth (44) of the fathers in families where the mother was not chronically ill were reported as being in fair or poor health.

One-third of the fathers in families with a chronically ill mother were unable to work at all; and nearly one-fifth were able to work but were limited in the kind or amount of work they were able to perform.

Use of community health resources. Families in both groups reported minimal use of health services and facilities. On the average, families with chronically ill mothers who were identified by health and welfare agencies indicated greater use of medical practitioners and other health facilities than did families without a chronically ill mother.

The lack of availability of services such as outpatient clinics, general health clinics, well-baby or pre-natal clinics, home nursing services could have been partially responsible for lack of use of health services by these families. However, it has been frequently noted that rural persons less frequently seek medical services.

Community resources of all 28 counties were inventoried. Explanation of measurement of selected community variables can be found in project report.

Conclusions. Although chronic maternal illness or impairments added to the hardships of the test families which may have contributed to the larger number of problems reported by this group, almost no significant differences in patterns of functioning of the two groups of families was revealed when the effects of a number of concomitant variables were controlled. Fewer meals eaten together by families with chronically ill mothers was the only indication of less family solidarity. However, the greater the degree of mother's disability, the greater she perceived her family's cooperation.

CHAPTER FIVE

INTERDISCIPLINARY GROUP SESSION FINDINGS¹

The summary of the discussions and the recommendations coming from all six interdisciplinary groups can be found in a later section. The following is to serve as a more detailed compilation of what actually came out of the sessions so that information not available in the summary statements is documented.

The findings and recommendations are presented on the basis of the following outline:

A. Improving economic conditions

1. Economic development and needed research
2. Agricultural development
3. Nonfarm possibilities, job training and migration
4. The mining situation
5. The possibilities of timber and lumber use
6. Taxation
7. Welfare

Recommendations

1. Industrial development and cooperation
2. Training, attitudes and welfare
3. Government and taxation
4. Research cooperation

B. Improving education and training

1. Adult education: values and aims
2. Elementary and secondary education
3. Vocational and technical education

Recommendations

1. Added education
2. Elementary and secondary education
3. Vocational and technical education

¹The names and affiliations of the participants in each session are shown in Appendix I.

C. Improving health conditions

1. Factors relating to poor health
2. Needed research and discussion of means for reaching the poor
3. Need for health education and training
4. How universities are helping

Recommendations

1. Research and evaluation
2. Training and demonstration
3. Role of universities and state health agencies

D. Improving housing and community services and facilities

1. Relationship between housing and human welfare
2. Need for understanding poor peoples' culture in improving housing
3. Adjustments needed in facilities and services
4. Financing housing
5. Education related to housing

Recommendations

1. Peoples' adjustment to values placed on housing
2. Research designs needed on housing
3. Involving people in development
4. Needed housing code changes
5. Purchasing and means of payment
6. Means for better interchange of ideas on housing

E. Summary of ideas developed and of recommendations made

1. Summary of ideas
 - a. Meeting poverty needs
 - b. Regional organization for cooperative action in research
2. Recommendations
 - a. Summary of results from special studies
 - b. Needed regional interagency and interinstitutional organization

A

IMPROVING ECONOMIC CONDITIONS

The first topic for discussion by these six groups was: "*What Can Be Done to Improve Economic Conditions: Through Agricultural and Industrial Development, Capital Inputs, Changes in the Welfare System and Changes in the Tax System.*"

1. ECONOMIC DEVELOPMENT AND NEEDED RESEARCH

The idea of economic development if defined by agricultural and industrial development only is too limited. The concept of economic development must be expanded to include that which is encompassed under service industries and educational programs. These latter two are fast-growing areas which must be developed in Appalachia. We must look at these in terms of the services they render to industry, to agriculture, and to people. In viewing services to people, it is important to separate adults from youth, so that each group may be given the fullest possible consideration.

Too many studies have been narrow, of a single descriptive type, with too much of a "one-shot" approach. Questions now needing answers are (a) what kind of industry is needed in Appalachia; (b) what types can be financially successful in this environment; (c) how can growth centers be developed and (d) how can the total community be brought to be concerned and involved in the poverty problem?

What is best for a community that is helped may not be good, or may be detrimental, to the nation or other communities. There is some question as to how much a corporation can exploit a person or community without our *calling* it exploitation. Who is to decide what industries will best match the talent of the community? Are concessions made to industry to be seen, in fact, ultimately as costs to the community? Which is better — move people to industry, or industry to the people?

Industry must be willing to adapt to local social customs, just as local residents must be flexible in their customs when faced with the new industrial environment.

2. AGRICULTURAL DEVELOPMENT

Many small farms cannot produce adequate incomes. Research is under way to determine the desirable and needed farm organization for adequate incomes on small farms.

The development of a non-tillage system for producing crops, such as corn on sloping land, enables the farmer in the area to substitute labor-using enterprises for more extensive enterprises, and, thus, to increase income of those who remain in farming.

These constraints also limit farm-related development: there is lack of products as well as markets.

Thus, there is very limited opportunity in agriculture in Appalachia. Perhaps 20 percent of those in agriculture can be supported adequately in Appalachian farming. Migration off the farms continues to be necessary.

Training in more effective farming techniques and/or skills appears necessary.

The poor people of Appalachia place a high value on being close to the soil. They have strong ties to large extended families and a strong sense of economic responsibility to these extended families.

Agricultural credit has been unavailable to the poor, due, in part, to the inability of the poor to prove, by rational argument, that they can get a good return on borrowed money they invest.

3. NON-FARM POSSIBILITIES, JOB TRAINING AND MIGRATION

Research is quite limited on needs of rural non-farm and part-time farm residents; TVA and Land-Grant Universities have work under way on this problem.

Relocation of workers is tied in clearly with job training. The younger and the better physically qualified move more easily to new areas. There are effects of moving on mental health, family life and other factors needing research involving such disciplines as sociology, psychology and economics. Studies in Canada and Europe show workers can be successfully moved to locations where job opportunities are open.

Values vary with groups within the region. The most productive groups tend to migrate, helping to alleviate the local problem, but not solving it.

The training of people and the attraction and location of industry must go hand-in-hand. Training should start at an early age; more work with parents in the home is desirable to provide the proper environment.

4. THE MINING SITUATION

In the East Tennessee coal mines study, according to Knipe and Lewis, no miner wanted his son to be a coal miner.

Miners over 45 years of age are not being rehired into modern mining. There are no acceptable agencies doing retraining. The over-45-year-olds will not accept new jobs with skills appreciably removed from the skills used in traditional mining, and they will not accept offers of employment that would force them to leave their homes.

One or two mining companies have set up training programs for 18-25 year-olds as machine operators and mechanics. West Virginia high school youth are being counseled to accept modern mining as a career .

5. THE POSSIBILITIES IN TIMBER AND LUMBER USE

As for timber, Lowry shows that timber does not hold much possibility for eliminating poverty: trees now growing are of low value and quality; stands are mixed; management is poor; timbering for short periods is a money-losing enterprise.

Although there is a real shortage, nationally, of good pine and fir, these trees take a long time to become productive, and there is no real shortage of hardwoods. In some areas timber is being sold at less than actual cost. Some areas do have good demand at the local level, but this is not true as a whole.

There have been some economic opportunities from outside capital for long-term resource development, if the resources are considered a gift of nature, but such investments were pretty well harvested in the 1920's.

Timber is, for the most part, the last possible use of land, since one must deal with a 20-to 30-year span. There are very little data at present compiled on timber. There should be opportunity to put people to work in timber conservation.

6. TAXATION

Community development is closely tied to local funds available. Local taxes are based on property evaluation. In poor areas this base continues to go down. Taxes returned to local units come on a matching basis, but the local units do not have the resources to meet this matching requirement.

Studies relating to a negative income tax show that: (a) no such programs are now in operation in Europe or Canada; (b) there are no criteria for determining the poverty level and (c) foreign countries do spend a larger percent of the tax dollar on welfare programs than the United States.

Appropriate bases for returning tax funds to localities must be found: in funding development projects, percentage of requirement must be related to local effort.

Improved taxing systems are important factors in locating industry. It is not clear what a fast write-off will do.

Severance taxes on extracted wealth is an important source of revenue that appears desirable, but this would have to be approached on a national basis to be competitive.

7. WELFARE

Welfare systems will likely not be changed through research; these are a political problem.

Planning for assistance to the minority that will remain economically unproductive may not negate, but, rather, might even strengthen the free enterprise systems.

Income to the non-productive contributes to overall demand and, thus, to a higher level of economic activity.

RECOMMENDATIONS ON IMPROVING ECONOMIC CONDITIONS

1. RELATING TO INDUSTRIAL DEVELOPMENT AND COOPERATION

New research should be designed to identify service industries appropriate to Appalachia.

Research and product development is needed in the use of mining by-products (e.g., explore the usage of "red dog" as road material).

Experimentation is needed regarding the most effective employment of poor people residing within certain radii of a locality (e.g., within week-end commuting distance of their homes).

Investigations should be made on means for keeping the poor people in the locality; (e.g., relating their love of the soil—truck gardening, handcrafts, using wood and coal, etc. — to the types of industry in which they might best participate).

More information should be obtained on the price structure of marketable public timber; on ideas and images held by local people and the public at large as to timber and its employment; on alternative uses of wood resources; and on possible types of recreation using timbered areas.

Studies are needed on motivation of people to engage in alternative types of employment—agriculture, mining, forestry, manufacturing.

Research should be accelerated on the quality and type of human skills needed to develop indigenous resources. In these studies, attention should be given to the importance of studying the Appalachian and managerial skills, skills required to be effective in recreational and tourism programs, etc.

Studies are needed regarding which industries would have competitive advantages if located in Appalachia.

Studies should be made on what counseling is needed to facilitate the relocation of people. These studies should include amplifying information on the job opportunities in different parts of Appalachia.

Studies should be made regarding investment capital needed to develop an area for resort and recreational development, especially in relation to the employment potential.

Studies are required on how to get the disadvantaged involved in discussions with business, industry and community leaders regarding their mutual needs.

More study is needed to determine the revenue capacity of various areas. In this regard such studies should include provisions for measuring local effort.

An examination should be made of the effectiveness of tax incentives for employers and employees who are involved in training people as a means for increasing employment.

Research is needed to expand knowledge on adapting cooperatives to the needs of those in poverty.

2. RELATING TO TRAINING, ATTITUDES AND WELFARE

Explorations are required in the most effective means for training poor people in needed skills (i.e., to make them more flexible and adaptable in a variety of environments).

Research and education is needed on how to change the non-poor people's attitudes toward the poor; on the ability of the poor to manage resources they now have; on the willingness of the poor to be educated concerning their station in life.

Studies are needed on the motivation of people of Appalachia to engage in alternative types of employment — agriculture, mining, forestry, manufacturing; also human skills needed to develop indigenous resources.

Experiments should be conducted regarding the problems attendant to increased social security for the aged and disabled. Some problems to be investigated in this regard are the relative amounts of assistance given as needed and accompanied by strong work and training programs.

There is need to evaluate the food stamp program as the best means to aid the low income group.

There is need to ascertain economic and social goals and provisions for old age made by rural families, in which researchers in all 13 states will use the same basic schedule for personal interviews. Proposals are to draw from a sample of 45 to 64 year-old husband/wife families whose income is not derived from public welfare, securing data on age, education, occupations, family composition and economic provision and goals for old age. Economic provisions would include programs of insurance, savings and investments, and amount of indebtedness. Goals for the future would include anticipated income, provisions for health care, housing and leisure-time activities. Data from the regional sample would be pooled, analysed and published collectively.

3. RELATING TO GOVERNMENT AND TAXATION

Research is needed on effects of different tax structures on the local economy and on local community development.

A study should be made of the negative income tax to provide incentive and a level of living determined as a minimum.

There should be an examination of the effectiveness of tax incentives for training people as a means of increasing employment.

Research on means for developing better regional planning and for enhancement of more effective forms of government should be encouraged.

4. EFFORTS RELATING TO NEEDED COOPERATION IN RESEARCH

Efforts should be made to tie the variables from different studies together to get a more complete picture of the implications of the research.

Interdisciplinary research requires an understanding and supporting administration; understanding of and working in other multidisciplines is needed. Research is likewise needed in developing better means for communication between disciplines.

B

IMPROVING EDUCATION AND TRAINING

1. IMPROVING ADULT EDUCATION: VALUES AND AIMS

In a discussion of values, it was brought out that: values really do not come from the outside but from groups in which people jointly establish their own value systems; there is need to get people involved and exchanging ideas across group lines so as to change values; decisions coming out of consensus in groups help adjust values at all levels, and these are conditioned by needs; vocational values (occupational prestige) should be examined so as to give dignity and support to all kinds of constructive work.

A problem to be solved in working with poor people in Appalachia is to establish common understandings or similar images of desirable aims.

There is a real need for adult education which should be in keeping with immediate and presently felt needs.

Three models for action have evolved: (1) education of the poor; (2) organization of the poor to exert their power; and (3) across-the-board cooperation in which all counsel together and work for the good of all. None of these models have been well developed.

Present agencies, including OEO and the Extension services, have become so institutionalized that they are not particularly effective in dealing with the poor; there is still need for some group or agency that can reach the people in poverty.

School board members should be provided with additional program training opportunities.



2. IMPROVING ELEMENTARY AND SECONDARY EDUCATION

What we know about Appalachian children is limited. For example, we are lacking in knowledge about their verbal skills. It is widely recognized that verbal skills of poor children generally are inadequate and that these children are below average in grammar, vocal expression and reading performance.

Yet research shows that 98 percent of those in poverty have TV sets, and young people watch TV for long hours. This research indicates that these youth have normal memory early in life. Yet, while 3½ year olds are generally accepted to have normal memory, 5½ year olds fall below the norm (this is when the drop-process begins); these conditions can be changed only through changing the attitudes and behavior of both the parent and the child.

The big problem is how to break the cycle of poor motivation.

Education depends not only upon the school, but also on the impact made by the culture or usage in the home; to disregard home influences can make education in schools futile.

Educational systems are too closely tied in with political systems, reflecting too much the values of the "power people."

Education must be made more relative to the problems and opportunities faced by the disadvantaged groups. High schools are too much oriented toward preparing all youth for college. Greater flexibility is needed in the types of programs available to the students.

Educational programs need to be more imaginative and innovative.

An educational system, to be supported by people in a community, must be relevant.

3. IMPROVING VOCATIONAL AND TECHNICAL EDUCATION

Young people, in some cases, have higher *aspirations* than *ability* to reach their goals. More youth want to go to college than can (or should) go.

Revenue from development of natural resources, such as coal, in Appalachia, is not going to local areas but to outside locations, making local educational support heavy.

"Trade" degrees or certificates should be awarded to remove the social stigma associated with vocational programs; such awards might

3

serve as incentives to induce greater numbers of persons to enter certain vocations (electricians, plumbers, etc.), important to the growth and development of the region.

More use should be made of industry in training programs, especially summer programs.

Prevailing attitudes toward vocational training should be changed so as to eliminate the stigma attached to it. The feeling that all should go to college should not be created; the reverse of this thinking should be encouraged.

Research and experimental efforts seem to point to the need for the development of regional cooperative units for maximizing available resources in the development of comprehensive schools: schools which can offer academic, socializing and skill developing opportunities to both the advantaged and the disadvantaged of an area. In such skill centers, job cluster education, mobile classrooms, telelecture and similar facilities are made available, and such a system serves also to provide for adult and community education.

A good vocational-technical program cannot be isolated from the comprehensive high school; senior students in this area need a good basic education at the high school level if they are to be successfully employed in industry requiring skilled help following graduation.

Secondary school students choosing skill center (vocational-technical) options tend to be oriented toward immediate goals, which means programs must be developed to help them meet these goals as well as to teach new skills.

Vocational education increases democratization, and hence must be provided in a manner to maximize options available to students and help the individual to be adaptable to change.

RECOMMENDATIONS FOR IMPROVING EDUCATIONAL CONDITIONS

1. RELATING TO ADULT EDUCATION

Research is needed to test the effectiveness of controlled TV.

Research is needed on effective methodology for teaching adults.

Civic education, involving the majority of the citizens, must be strengthened so that attitudes and awareness of problems may be broadened and so that citizens may be motivated to action.

Research should be conducted on definition of various issues in which change is involved. For example, how is the decision-making process to be defined as it relates to job opportunity in a community.

Methods for involving people in identifying their own problems should be examined.

What, how and why people get into the poverty situation and how to get young families out of it should be studied.

2. RELATING TO ELEMENTARY AND SECONDARY EDUCATION

Use of educational methods must not be limited to the traditional; innovation is required, as, for example, new and imaginative uses of educational TV.

Research should be conducted to assist schools in becoming more realistic in terms of the home culture of the pupils and for demonstrating that effective work with families is essential to the effective growth of the child.

Research is needed on what high school students need to learn, and how long it should take for this, based on what adults of 1975 will need to know to function effectively in that society.

Research is needed to determine whether innovations in secondary education (such as in skill centers, cooperative programs with industry, etc.) are doing the job necessary to prepare the disadvantaged, or if they are only offering more alternatives for the advantaged.

Consolidation of and new research on application of TV, telelecture and use of other mass media are recommended.

Effects of school consolidation on the community should be studied; these studies should include examination of the aspirations of children, families, administrative "empires", and the gap between the "have" and the "have nots".

A special corps of teachers for the disadvantaged should be developed.

Methods of maximizing ways to teach reading should be studied.

Ways to modernize people through schooling, fiscal policy and political aspects of the system should be studied.

3. RELATING TO VOCATIONAL AND TECHNICAL EDUCATION

Research is needed to test the possibilities of changing attitudes towards trades and vocational education.

In programs for youth, such as Head Start, parents also get information. Research is required to test the effects of this information on the parent-child-school relationships. There is need to provide other opportunities for adults to learn in connection with programs supported by welfare agencies or government subsidy and these all must have built into them means of evaluating their effectiveness.

Counseling services should be improved to make young people, particularly those from the poverty class, aware of opportunities beyond their local community and their geographic confines. Research is needed to establish what constitute effective counseling guidelines. Much progress can come from properly motivated counselors and teachers, if adequate time and other resources are provided in the school. Research on techniques to promote this type of motivation is needed.

Much more effort should be put on acquainting students with the nature of business and to prepare them for moving into business employment.

C

IMPROVING HEALTH CONDITIONS

The topic "*What can be done to improve health protection and care,*" brought out not only what research is being carried on but also what action is and should be taken. The major ideas reported were:

1. FACTORS RELATING TO POOR HEALTH

Alcoholism is a major problem, and can be an important cause, or an effect, of unemployment and low income.

Infant death rates, one index of health, have declined markedly in Appalachia in the last 25 years.

Many low-income people are not health-conscious.

Poor health is an integral part of the poverty cycle.

Children who have bad eyes do not like to read; this is often laid to other reasons for being slow in school.

"Poor health" can become a status item and a partial excuse for lack of gainful employment.

Environmental health and accident problems are serious in Appalachia; child drowning examples are numerous.

2. NEEDED RESEARCH AND DISCUSSION OF MEANS OF REACHING THE POOR

Relation of housing to health and chronic disease needs to be studied.

The question was raised: since society can affect mortality rates, is it not also responsible for dealing with fertility rates?

Questions were raised as to priorities: study theory, then start programs; or develop programs, experiment, make errors and learn accordingly. The question as to effective use of existing knowledge and research was also raised.

Improvement of questions asked by agencies, e.g., health agencies, should be worked out.

Considerable time must be taken to establish rapport with poor people in an area before any formalized research project can be started; conferences with local practitioners is very helpful in developing projects. An important source of information is the local funeral director.

3. NEED FOR HEALTH EDUCATION AND TRAINING

There is a marked requirement for educating the client to use health facilities, practice good nutrition and develop organized procedures to solve certain problems locally and/or seek help from the outside.

Results are available from land-grant university Experiment Stations and Extension Services in a number of South and Southwest states bearing on the general problem areas of good consumption, food purchasing patterns, food tastes and individual and family values relating to food.

There are possibilities of using semi-professionally trained medical practitioners.

Since many low-income families want to limit the number of children they have, they need counseling and education rather than forced limitation.

New information as to how to use professionals, subprofessionals and local aids is needed. Projects funded by OEO should be researched to preserve findings from their pilot projects. A current project in Kentucky is aimed at finding out new roles for non-professionals and which functions can be performed by varying levels of subprofessionals.

Lack of medical services, like the lack of trained personnel in all agencies, is a good indication of the need for local training aids.

4. HOW UNIVERSITIES ARE HELPING

Universities are more and more becoming concerned with providing active assistance to the poor in the local environment.

Programs of at least three medical schools in the region (Kentucky, Virginia and West Virginia) are being directed toward providing more health care to the Appalachian poor. Some examples of these include: gathering data about health needs; encouraging M.D.'s to practice in rural areas; doing research through students in medicine and dentistry in rural areas on family health needs and basic problems facing professionals now working in rural areas; family health education (using nurses' aids in visiting isolated communities); and continuous medicine.

RECOMMENDATIONS FOR RESEARCH AND ACTION

1. RELATING TO RESEARCH AND EVALUATION NEEDED

There is need for an evaluation of present food programs, especially in relation to school lunch programs.

Descriptive research is needed to find out dietary habits and the nutritional status of people within the region.

Research is needed on ways to make health programs operational to the impoverished as well as to the leaders who might work in behalf of the impoverished.

Research is needed on the feasibility of training, using subprofessional medical practitioners, and the possibility of greater use of mobile diagnostic centers; training of semi-professional medical personnel should be greatly expanded.

Other areas of research needed include: how to make professional services available to people in deprived or underdeveloped areas; on the effects of chronic illness of parents on children; on whether there is a difference in the mental health of the father as compared with that of the mother in the family.

Studies of family breakdown among the poor is badly needed.

Research is needed on the specific health needs of Appalachian families, together with data on who and where the poor are and what are their health problems.

Studies should be undertaken to determine the use of folk medicine, faith healers, and patent medicines by the Appalachian poor, and their effects on the level of individual health.

Studies should be made of health and other characteristics of people who leave Appalachia, those who remain and those who leave and return.

Research is needed on the problems a health agency has in penetrating the local culture in Appalachia; it is important to find out what it takes to have health information show results in Appalachia.

Relationships of nutrition to ratio of births and deaths of young children should be determined.

The underlying fiscal problems of financing improved health services should be studied.

2. RELATING TO NEEDS FOR TRAINING AND DEMONSTRATIONS

All available agencies, including churches, should extend birth control education among the poor in the region.

Demonstrations should be tried out on community development programs, providing intensive help in housing, education, nutrition, medical care, etc., to show what can be accomplished.

The new modular approach to housing to alleviate poor housing conditions in urban areas should be tried out in rural areas.

Combining homes for the aged with orphanages for the young, should be employed to provide a sense of mutual need and usefulness and to overcome the depressing aspect of homes for the aged.

3. RELATING TO THE ROLE OF UNIVERSITIES AND STATE HEALTH AGENCIES

Universities should create formal positions for persons to work primarily with research relating to problems in poverty.

Programs of research and action underway at the University of Kentucky should be extended to the entire Appalachian region.

Programs focusing on services to meet health problems as they exist in specific geographic regions should be instituted by state health departments through county or multi-county units. Examples of such programs include: periodic health checks to determine the incidence of pneumoconiosis or other lung diseases in the population, the instigation of security/social amenity programs to assist affected individuals, making more use of mobile units to provide X-ray examinations for coal miners, coke producers and others in high incidence air pollution areas.

D

IMPROVING HOUSING AND COMMUNITY SERVICES AND FACILITIES

Reports on the results of discussion on this topic showed relations between housing and living levels, necessity for understanding poor people's attitudes toward housing and other factors indicating the need for interdisciplinary approaches. The recorders reported that the following ideas were developed in the sessions.

1. RELATIONSHIP BETWEEN HOUSING AND HUMAN WELFARE

Better housing is needed for the poor of Appalachia. As results of studies of the relation of housing to low income, it could be shown that there is a straight line relationship between the extent of low income, housing and the degree of chronic illness. Also, there are direct relationships among housing, family health, education and achievement of youth, use of available foods and other areas of family well-being.

In planning for housing and other facilities, the use of local skills and materials should be considered.

3. NEED FOR UNDERSTANDING POOR PEOPLE'S CULTURE IN IMPROVING HOUSING

Value orientations of the poor must first be understood before appropriate education and plans for housing and other facilities can be effective; likewise, understanding the attitudes of the poor is essential to the development of appropriate programs.

More attention should be given to reviewing present government studies on housing.

Home ownership, it is believed, is highly valued by people in Appalachia, with a strong preference for single dwellings placed on at least a small plot of land. Housing is poorly used, doubtless, because poor people cannot see alternatives.

4. ADJUSTMENTS NEEDED IN FACILITIES AND SERVICES

To induce rural people to live in clusters, provisions of community services and facilities must be greatly simplified.

The organization of cooperatives relating to housing has not been very successful in the region.

The problem of improving community services is fraught with problems relating to individuality, independence and a desire for expression of self interest, resulting in resisting ideas and programs coming in from the outside.

5. FINANCING HOUSING

Consumer guides should be established for materials, thus improving quality and, in many cases, reducing costs. Costs are increased by political intervention and implementation of government policies at every level.

Housing modules or pre-fab housing units hopefully could be designed at low cost and offered to low-income families through long-term, low-interest loans, with factories to produce these homes located in areas where the houses will be located.

Financial institutions are very conservative and do not provide venture capital for local development; they insist, however, that capital is available for "sound" ventures.

6. EDUCATION RELATING TO HOUSING

Television, as a medium to reach poor people on improved housing, may be faced with a cultural screen not easily penetrated.

Local leadership is available and is essential to development. Problems in getting the usual leadership support may be less serious than those relating to local followership.

RECOMMENDATIONS

1. RELATING TO PEOPLE'S ADJUSTMENT TO VALUES PLACED ON HOUSING

Research is needed as to problems of changing occupancy from older retired couples to young couples with children.

Research is needed as to how poor people can adjust to new housing; is their adjustment different to public than it is to private housing?

Research is needed on adjustment to ownership of housing; a check should be made on how the disadvantaged in foreign countries have made adjustments to housing problems.

Research is needed as to the effect of long term goals upon the Appalachian and how to develop such goals in the people of the region.

Research is needed to determine what value Appalachian poor place on housing — how important it is to them — and where housing fits into their hierarchy of values towards goods and services.

A study should be made of the ratio of the population living in various types of housing and their socio-psychological relations to the county and the community.

More information is needed on what results from the imposition of values on a people as compared with efforts to broaden the horizons of local people so that they request new facilities.

2. RELATING TO RESEARCH DESIGNS NEEDED ON HOUSING

A planned research project on housing for the poor should include: (1) development of partial housing elements for addition to existing houses; (2) designing low-cost complete homes; and (3) development of an information retrieval system.

Full consideration should be given to architectural barriers for handicapped persons when planning housing and public use buildings.

3. RELATING TO INVOLVING PEOPLE IN DEVELOPMENT

Thorough efforts must be made to understand the people affected when planning facilities or programs are developed; they should be brought in at the planning stage.

The degree of school consolidation needed must be studied carefully, giving attention to travel time for various ages, community values, and the type of the culture, as well as to the efficiency of construction, operation and instruction.

Research is needed on successes and failures in community development and the relationship of the population to the problems on which attempts were made at solution.

A study should be made on how to provide community services and how they can be financed.

4. RELATING TO NEEDED HOUSING CODE CHANGES

A study needs to be made of the feasibility of changing present housing codes, particularly relating to low income housing.

5. RELATING TO PURCHASING AND MEANS OF PAYMENT

Information is needed on people's willingness to buy housing improvements and the most feasible methods of payment for such improvements. A study of methods of payment should include credit availability, people's ability to repay, necessary length of repayment time and related data.

An investigation should be made of statutory limitations on interest rates retarding flow of venture capital.

6. RELATING TO MEANS FOR BETTER INTERCHANGE OF IDEAS ON HOUSING

Knowledge and experience about housing must be consolidated as it relates to what might be done in housing in Appalachia. This requires development of techniques for promoting a perusal of all that has been published and a gleaning of the salient points applicable to problems in Appalachia.

Means should be provided for the flow of communication between researchers and agencies.

E

SUMMARY OF IDEAS DEVELOPED AND RECOMMENDATIONS

1. THE RECORDERS, IN THEIR SUMMARY STATEMENTS MADE THE FOLLOWING POINTS:

a. *Meeting poverty needs*

Appalachia is so heterogeneous — composed of such a variety of groups and levels — that to find people in distress one must concentrate on those on the lowest income level.

Many persons in great need are not receiving any form of welfare assistance, and often are not visible to society.

The crisis in medical care in the area is not recognized by the affected but by society, so society must initiate remedial action.

In our present level of aid to depressed areas, there is only enough to perpetuate poverty: not low enough to kill aid; and not high enough to cure poverty.

The level of happiness is not a sufficient criterion to determine a need for action; other valid measures, such as poor health, must be used.

The thrust is now changing from economic resource development to human resource development.

Guaranteed jobs rather than guaranteed incomes are much more socially desirable in that they make the family a part of the social structure.

b. Regional organization for cooperative action in research

We need to make a better and fuller use of existing super-structures, such as the Appalachian Regional Commission.

A structure separate from political structures might take an independent look at the problems and better reflect the values of the poor.

Advisory committees of a broad interdisciplinary nature can be very helpful to formal commissions.

Action programs *with* observation or evaluation systems built in are needed.

A mechanism for Appalachia to link researchers to practitioners, and vice-versa, both for dissemination of research findings and for generation of new researchable problems is needed to which the researcher could direct his attention. Research action "bridge people" are needed.

2. RECOMMENDATIONS, AS SUMMARIZED BY THE RECORDERS, COVERED THE FOLLOWING:

a. Summary of results from special studies

Changes will be required in present programs relating to poverty which will stimulate and create a sense of responsibility and sense of belonging to the society.

Coal mining communities, which are relatively the most disadvantaged, should receive priority in allocation of efforts and resources.

Research findings indicate that direction is needed in development efforts to alleviate poverty. Where relocation of people is involved, it has been pointed out that further research is needed to comprehend the interests and values of people in uneconomic areas. Such research would involve the cooperation of those in the disciplines of education, sociology and psychology in determining need and how to bring about

change in values and traditional orientation among unemployed and underemployed. There is need for strong institutional administrative support to bring this about. The general opinion of the members of the group, is that there is a great need for researchers of different disciplines to get together to discuss and formulate research procedures as a means of learning to communicate among themselves and to insure the best possible research in areas of common concern.

Problem solving must take an important place in formulating new research proposals. Facts and sound data derived from careful study on the part of researchers knowledgeable in many disciplines are increasingly important.

b. Regional interagency and interinstitutional organization

There is need for designing an effective inter-agency structure.

Human as well as economic resources development must be a focus of research and other programs.

There was group consensus that studies by economists, political scientists and sociologists should be concerned with types of laws and community systems that would give either tax relief or incentive income for the development of timber resources.

It would be desirable to build a "data bank," providing more comprehensive information on Appalachian resources, and agencies available to work on Appalachian problems alternative courses of action, possible facilities for adaptation and probable results, etc.

Some form of structure to "bridge" the gap between the poverty group and the existing power structure is needed to expedite planning and implementation.

The Appalachian Commission should continue to develop the knowledge bank started at West Virginia University, which is not at present in sufficiently usable form. There is need for developing methods for knowledge retrieval, focused on interdisciplinary and multi-discipline efforts and problems.

Efforts should be made to divide the region into smaller problem units and to develop interinstitutional (university-government-private) arrangements to study Appalachian problems. The interinstitutional agency should then be able to offer viable alternative solutions which will afford researchers and those oriented to action to work together in the best interest of the region.

CHAPTER SIX

INTERINSTITUTIONAL COLLABORATION AND COOPERATION¹

The four interinstitutional session discussions were based on two topics: (1) the extent and need for interinstitutional collaboration and cooperation, and (2) interdisciplinary research in progress. These are reported in the following sections as indicated in the outline:

A. Major Ideas and Recommendations

1. Requirements for interinstitutional efforts
2. Needs which must be met by interinstitutional research
3. Types of effort which can and should be developed
4. Types of communication funding assistance needed
5. Functions which can be performed through interinstitutional cooperation in reaching local areas

B. Position Papers Involving Interinstitutional Cooperation

1. Interdisciplinary research and interinstitutional collaboration, University of Alabama
2. Interdisciplinary research, University of Kentucky
3. Cooperative Extension Service programs with the culturally disadvantaged, Pennsylvania State University
4. Interdisciplinary research, University of Ohio
5. Interinstitutional cooperation on research of low-income family housing, Virginia Polytechnic Institute
6. Establishment of a Regional Appalachian Research Institute

¹The names and affiliations of the participants in each session are shown in Appendix I.

A

MAJOR IDEAS AND RECOMMENDATIONS

1. REQUIREMENTS FOR INTERINSTITUTIONAL EFFORTS

Interinstitutional efforts should involve a wide range of agencies and organizations: industry, state, local and federal governments, and educational institutions.

Interinstitutional research should be undertaken only when advantages clearly outweigh disadvantages. Justifications include: (a) a problem common to two or more institutions; (b) a means of using talents in a number of institutions; (c) opportunity to have access to a wide sampling area for research; (d) institutional alliances where all have limited skills and budgets which can permit collective involvement in research; (e) collaboration which permits broadening the experiences of graduate students.

Interinstitutional research can be initiated: through administrators; by a funding agency; and through individual researchers.

Interinstitutional cooperation is needed where research designs require extensive but accurate coverage of large regions. Also, one institution may obtain data which require specialized analysis and interpretation that can only be accomplished at another institution.

2. NEEDS WHICH MUST BE MET THROUGH INTERINSTITUTIONAL RESEARCH

There is an enthusiasm for interinstitutional research among those who have taken part in this kind of effort.

The most critical need that must be met in the total program of research on poverty by the various colleges and universities is that of communication with each other as well as with other organizations and agencies working on problems dealing with poverty.

Too often this lack of communication results in different departments' within a university or college conducting research that could more effectively be done by joint effort. Colleges and universities should support organizations similar to the proposed Southern Appalachian Research Institute lest private research groups or companies take over this type of research.

As an outgrowth of this conference (Appalachian Conference on Poverty and Development sponsored by VPI July 17-20, 1968), various

universities may want to plan followup conferences, limited in scope rather than covering the total spectrum of the problems of poverty covered in the VPI conference.

There is need for finding out what the actual impact of research and efforts dealing with Appalachian development during the past several years has been, and how the effects of the funds spent in this development have been evaluated.

Interinstitutional cooperation is helpful in designing and implementing sophisticated and meaningful research problems.

3. TYPES OF EFFORT WHICH CAN AND SHOULD BE DEVELOPED

A public affairs education program might be effective in helping people in a particular area to overcome its poverty and related problems. The study of a region or area should not be restricted only to the problems of poverty but to the total problems of the area.

Community colleges may be able to act upon research findings from other colleges (and universities). This may be true especially in implementing research findings at the local level, for community colleges are likely to have the necessary rapport with their communities.

Research is needed on human resource development to help redefine economic efficiency.

A mechanism should be devised that will foster a closer linkage between researchers and practitioners.

Efforts should be made to build up a clientele of research users; use of research should be consistently promoted.

There is a need and desire for more interinstitutional research and cooperation dealing with problems of poverty areas.

We must be bold in our approaches; the tendency is to stop when someone says, "It can't be done!"

4. TYPES OF COMMUNICATION FUNDING ASSISTANCE NEEDED

A list of human resources is needed in the Appalachian area in order to have manpower readily available for research studies (this list can be obtained through survey and research units).

Regional commissions should be more active in disseminating information so as to keep all interested groups better informed.

An Appalachian informational system on various types of research should be established.

An organization, similar to the Center for Urban studies, should be established to assist researchers in locating appropriate funding agencies.

There is a great need for more communication among various agencies, departments, institutions and individuals as to what each is doing in the study of problems of poverty.

5. FUNCTIONS WHICH CAN BE PERFORMED BY INTERINSTITUTIONAL CO-OPERATION IN REACHING LOCAL AREAS

A cooperative arrangement to establish a data bank is needed. This bank must provide data in a neutral form. It must also struggle with the problem of relating data which may be expressed in different standards (e.g., turnover rates may be in percentages, absolutes or some relative measure as "good" or "bad".)

Major *institutions* should establish relationships with local *institutions* in order that: (a) local leaders may be identified; (b) local leaders may be trained locally under plans and dollars from outside institutions; and (c) local people may be involved in implementing policy.

B

POSITION PAPERS INVOLVING INTRAINSTITUTIONAL AND INTERINSTITUTIONAL COOPERATION²

1. INTERDISCIPLINARY RESEARCH AND INTERINSTITUTIONAL COLLABORATION: ALABAMA

Charles Thomas Moore, University of Alabama

Located at the southern end of the Appalachian chain, the University of Alabama has long been committed to research, assistance, advisory, and demonstration programs in urban and rural areas. This commitment of human and economic resources can be traced throughout the history of the University and has been expanded in recent years. Projects and programs have been designed to increase the opportunity for the people of Appalachia to become an essential part of the mainstream of American

²See Appendix I for identification of authors.

life. The University also has engaged in extensive cooperative research and service programs with public and private institutions to directly attack the needs of social, economic, cultural, and technological development; resource utilization and allocation; alleviation of poverty; distribution of income and tax burdens; educational planning; and underemployment and unemployment. Much more research effort is needed and appropriate demonstration programs must be implemented.

The University has established relationships with Oak Ridge Associated Universities (cooperative science research and Southern Regional Training Program), the Gulf Universities Research Corporation (organized for oceanographic and marine biological education and research), and the Inter-University Consortium for Political Research (a partnership with a group of universities and the Survey Research Center at the University of Michigan). Other research consortia agreements are under discussion. Agreements between institutions of higher learning in Alabama and in the Southeast (especially with colleges predominantly for Negroes) have been recently established, and cooperative programs in teaching and research are being developed. Through its Medical Center, the University has moved to create new types of community hospitals, public health planning agencies and research facilities in the Appalachian area which will provide new organization, increased efficiency, and a broader and deeper range of medical services to the people of northern Alabama.

Two specific agencies have been created in concert with others to attack problems of economic development and social maladies. One is the Alabama Community and Technical Services Agency, which combines the resources of Auburn University and the University of Alabama, primarily through extended service programs, to develop business, commerce, and industry and to encourage economic growth. The other agency, created to combine the resources of six institutions of higher learning in Alabama, is the Alabama Technical Assistance Corporation. This non-profit corporation was established to extend opportunities to communities and citizens of Alabama in order to initiate the process of eliminating poverty. Principal funding has stemmed from the U. S. Economic Opportunity Act of 1964. Specific programs include advisory services for community leadership; statistical and information services; consulting assistance on state and community planning and execution of community action programs; and training and demonstration for community action leadership and program personnel.

A host of research and demonstration programs sponsored by federal and state agencies under, for example, Appalachian legislation, have involved interdisciplinary approaches to problem solving in the region and for its people and the use of talented researchers from other institutions to provide research and demonstration skills. For example, one research effort underway at the University since 1963 has been an analysis of the economic and social effects of the injection of a major public investment into an area—specifically an analysis of the benefits and costs of the interstate highway system to the individuals, industries, and communities involved. To date, slightly more than \$400,000 has been invested in this research effort and six volumes have been published which document in detail the findings, conclusions, and recommendations stemming from this research. This effort has been truly interdisciplinary and has involved talent from such disciplines as business administration, computer sciences, psychology, law, economics, geography, sociology, public administration, and regional and city planning. Out of this massive effort have come insights into, and hopefully partial answers to, the problems of capital immobility and technological obsolescence in depressed areas, the problems of isolation and fragmentation of communities and neighborhoods caused by the location and construction characteristics of the interstate highway system, the problems of optimal land utilization and control, the problems of citizens who have been affected by the acquisition of right-of-way and the construction of the interstate highways, and the problems of political fragmentation which confront the metropolitan complexes of today. The valuable information and insights obtained from just this one research effort are too numerous to mention at this time.

The University has recently restated its commitment to involvement in public and educational planning and development in Alabama and the Deep South. Interdisciplinary centers performing research in the areas of planning, the social sciences, technology application and a host of specific problems including transportation, social welfare, pollution, child development, consumer economics, bio-engineering, natural resources, administrative science, industrial relations, and urbanology are being developed. The University consistently looks for the opportunity to improve the society from which it stems and is deeply committed to matching and partnership agreements with other universities which will involve the massive economic, social, political, and physical environmental problems of our time. The University has gained extensive experience through its cooperative agreements and regards itself as a partner in these cooperative arrangements. The

University has proved its capacity to provide research-oriented resolutions to the problems of the state and region and, in concert with others, will move at an even faster rate to improve Appalachian society.

2. INTERDISCIPLINARY RESEARCH

University of Kentucky

Interdisciplinary research on Appalachian area problems is currently being conducted in four organizational units of the University.

1. *Center for Developmental Change*—The center is a special unit organized to define and study contemporary problems of social and economic underdevelopment, utilizing multidisciplinary approaches where appropriate. A major project of the Center is an evaluative study of the Community Action Program in Knox County, Kentucky sponsored by the Office of Economic Opportunity. The evaluation incorporates ten contributing studies with investigators drawn from six different disciplinary areas.

Two other CDC projects involving Appalachia are in the planning stage: a study of population management through migration and family planning, and a study of the adaptation of agrarian areas to the introduction of industry.

2. *Institute for Environmental Studies*—The Institute is a research and public service unit of the University of Kentucky Research Foundation. It is presently engaged in the preliminary planning and design of a new town in eastern Kentucky as a means of supporting and attracting industrial growth and employment, and providing a higher level of urban services to the area.

A second Institute project involves the development of instructional aids for area development, including resumes of successful low-cost housing projects, case studies of successful urban renewal projects in small towns, and the provision of illustrative material and texts explaining the concept of employment growth centers as instruments of regional development.

3. *Department of Community Medicine*—This unique department in the College of Medicine has as its major aim the education of students in the identification and solution of health problems in communities or population groups. Medical students are provided with opportunities to conduct field studies of medical practice, family health practices, epidemiological problems, or community factors affecting

the supply and utilization of health services, under the guidance of a staff of physicians and behavioral scientists. A number of such studies are carried out in Appalachia. In addition to the student studies, community health research is conducted by staff members, including several "field professors" located in various areas of the state.

4. *Department of Community Dentistry*—This Department is the College of Dentistry's counterpart to the College of Medicine's Department of Community Medicine. Advanced dental students are provided with opportunities for field research experience on social factors related to dental health in a variety of communities. A recent clinical project in the Appalachian region involved a study of the prevalence of dental caries among school children in the Wolfe County, Kentucky schools, and the provision of dental services through clinics as a basis for estimating costs of dental care.

3. COOPERATIVE EXTENSION SERVICE PROGRAMS WITH THE CULTURALLY DISADVANTAGED

William M. Smith, Jr., Pennsylvania State University

Off-campus programs in Agriculture and Home Economics are available to all residents of the Commonwealth through the county Extension offices. Statistical records provide one estimate of clientele reached.

In 1967 Extension staff members were asked by the Federal Extension Service to estimate numbers of participants, in various Cooperative Extension programs, from families with annual incomes under \$3,000.00 The following table is a summary of these estimates from 67 Pennsylvania counties and is made up of figures taken from an Annual Statistical Report Supplement January 1—December 31, 1967.

<i>Members of Families with Estimated Incomes of \$3,000 or Under</i>	<i>Total</i>
4-H Club membership (youth 9-18 years of age)	10,623
Youth (9-19 years) participating in other Extension youth programs and activities	5,844
Extension home economics group membership	8,598
Participating in other home economics programs and activities	16,576

Farm operators and resident farm laborers in group meetings	48,111
Farm operators and resident farm laborers on direct mailing lists	29,609
Farm operators and resident farm laborers in consultations	29,098

Three other sets of available statistical information may be pertinent to this report. The first of these relates to a record of group meetings held with or for low income or disadvantaged people. In a 15 month period beginning October 15, 1966, the Pennsylvania Extension staff held 410 meetings with 6,979 in attendance and trained leaders who held 55 meetings with 816 in attendance. A second category for which some data are available is group activity expressly held for small or part time farmers generally of low income. In the 15 month period beginning October 1966, the Pennsylvania Extension staff held 310 meetings with 9,510 in attendance and trained leaders who held 10 meetings with 195 in attendance. A third example is the pilot program in family financial management education conducted in five counties in the Philadelphia area, 1967-1968. Over 400 professionals who serve low and middle income families of all races have been provided materials and training in this area; 558 persons receive a bimonthly newsletter. In spite of great demand and critical need for this program it will be terminated because of inadequate funds.

Other specific examples of programs under way: (1) County resource development programs have helped bring industries into low-income rural areas. (2) 4-H Clubs have been organized in such settings as OEO Neighborhood Youth Centers, low-income housing developments. (3) Consumer information, nutrition, grooming, and child care have been taught to groups of welfare recipients, Head Start parents, and senior citizens. (4) Family housing programs have been carried out with the use of model apartments in urban low-income housing projects and by assistance in kitchen planning in low-rent housing developments (5) Craftsmen in mountain areas are being helped to improve their skills and market products effectively. (6) Career exploration programs are offered through the 4-H Club staff. (7) Adult homemaking workshops have been given to homemakers on public assistance. (8) Through the resource development program, training is provided for waitresses in restaurants. (9) Low-income farmers in certain areas are helped to plan and organize summer vacation businesses. (10) Marginal dairy farmers are aided in analyzing trends and making appropriate adjustments. (11) Certain demonstration farms are focused on improving practices of low-income farmers.

4. INTERDISCIPLINARY RESEARCH

Ohio State University

Currently a number of studies are underway in the areas of health, housing, low-income and community services at The Ohio State University, College of Agriculture and Home Economics and the Ohio Agricultural Research and Development Center. One study of particular relevance is an interregional study entitled: "Factors Affecting Patterns of Living in Disadvantaged Families with Special Emphasis on Resource Allocation and Value Orientation." Dr. Francille Maloch is taking leadership on this project at The Ohio State University.

A second major study underway at OSU is concerned with a broad spectrum of rural life. On July 1, 1967, the Department of Agricultural Economics and Rural Sociology entered into a cooperative research agreement with the Economic Development Division, United States Department of Agriculture. The title of the research project is "Economic Aspects of Rural Life in a Relatively Affluent Region with Emphasis on Low-Income Families." Jeannette Fitzwilliams, USDA, and Ted Jones, Agricultural Economics, are the project leaders.

For this study, field schedules (3200) from the five East North Central states are being processed. The analysis phase will begin in September 1968 and is expected to be completed by mid-1970. The information was obtained from farm families with less than \$10,000 gross farm sales and from non-farm families living in rural areas. The reports will include the following major areas of subject matter:

- A. Household composition
- B. Job and activities
- C. Work handicaps, training and employment difficulties
- D. Farm income and accounting practices
- E. Income from sources other than farming
- F. Assets and liabilities
- G. Food patterns
- H. Medical costs
- I. Housing facilities and improvements

In addition to the conducting of original research, a considerable amount of resources should be allocated to sifting, searching and synthesizing existing completed research.

5. INTERINSTITUTIONAL COOPERATION ON RESEARCH OF LOW-INCOME FAMILY HOUSING

James Montgomery, Virginia Polytechnic Institute

For a five-year period, beginning July 1, 1968, researchers in five southern Experiment Stations and in two agencies of the U. S. Department of Agriculture will be engaged in efforts to find ways to improve the housing of low-income families. The objectives of regional project S-66, "Physical, Social, and Economic Aspects of Functional Housing for Low-Income Families," are:

1. To develop and evaluate concepts for low-income housing
2. To construct and evaluate prototypes of houses and components
3. To develop a retrieval system of housing information

Researchers have developed a procedure calculated to cope with the complex nature of housing. The essence of the effort involves a three-pronged approach, namely, concept teams, evaluation teams, and a housing information system.

The *concept teams* will be established by the participants in order to identify and refine housing concepts which will become the foci of coordinated research efforts. These concepts, in turn, will be the bases of housing prototypes. In some of the states, one or more houses will be built; in others housing elements, such as mechanical cores, floor, wall and roof subsystems, bathrooms and utility systems, will be planned and built. Concept teams will also assist in identifying gaps which will be filled by means of laboratory and field study.

Evaluation teams will be organized to examine the procedures and processes being followed by researchers who concentrate on specific concepts and on gap filling research. The major function of these evaluation teams will be to make a systematic and continuing review of research goals from their inception to completion. These teams, as in the case of the concept teams, will also identify gaps in knowledge and assist researchers in designing a *modus operandi* for evaluating research houses and components in terms of responses of the users. These data will then be used as a basis for further refinements.

The third major part of the research plan includes the establishment of a housing information retrieval system or data bank. The main purpose in developing this facility is to maximize the speed and economy of access to existing information. By assembling, storing and making

retrieval instantaneous, the bank will help an architect, for example, gain access to the research of social scientists, home economists, etc., and vice versa. As the system is developed there will be an input from the various sub-projects of the research as well as from a substantial body of existing data and information. Toward the end of the five-year fund, the data bank will make information available to members of the research team.

Two basic themes cross-cut the research. First, as was stated in the project proposal, "Far more relevant housing information is available than is being used. Therefore, a primary focus of the research will be to *utilize existing knowledge*. Only in those instances where gaps clearly are indicated in the present body of information will additional data be collected, analyzed, and interpreted by project participants." A second theme in the research is "its plan for close and systematic coordination of the efforts of personnel representing such disciplines as architecture, engineering, home economics, sociology and economics".

Participating educational institutions and federal agencies include: Clemson University, The University of Georgia, North Carolina University at Greensboro, Texas Agricultural and Mechanical University, the Virginia Polytechnic Institute, and the Agricultural Research Service and the Forest Service of the U. S. Department of Agriculture.

Sub-projects that will embody the three objects of the study will include: a field study of the meanings of housing among such sub-cultural groups as Appalachian, Mexican-American, and Negro families; building codes and restrictions as they relate to low-cost housing; design, construction and testing of two or more low-cost houses; the development and testing of mechanical cores; the establishing of a housing information system; analysis of materials and construction system; development of such subsystem assemblies as lighting-ceilings, roofs-walls and thermal-ventilation components; cost reduction studies by means of construction and erection procedures; the development of new materials and molded subassemblies; and variability and relative costs of wood floor finishes.

Hopefully this multi-disciplinary research project will make a substantial contribution to housing technology which can be applied toward the end of upgrading existing and the building of new dwelling units for various types of low-income families in the South.

6. ESTABLISHMENT OF A REGIONAL APPALACHIAN RESEARCH INSTITUTE CONSORTIUM

Richard B. Drake, Berea College

The University of Kentucky, Berea College and the Council of the Southern Mountains have been in consultation since March 1968, concerning the possibility of establishing some kind of consortium dedicated to Appalachian research. In May the question was raised concerning the long-range effectiveness of another Appalachian research institute which would merely duplicate—and compete with already existing institutes in West Virginia, Tennessee and other states.

Accordingly, four other state universities plus representatives of the Ford Foundation and the Appalachian Regional Commission were invited to meet in Berea, Kentucky, on July 5. At this July 5 consultation, representatives from V.P.I., University of Tennessee, University of North Carolina in Chapel Hill and Raleigh, and West Virginia University, met with those from the Council, Berea College, Kentucky and the A.R.C., and the idea of a regional research consortium was fully aired. It was concluded that the idea ought to be pursued further, and that a proposed organization should be drawn up for the consortium and discussed—and perhaps even adopted—at a meeting to be called in early October.

Such an institute would probably be owned by the colleges and universities that make it up, and operated by a central staff and governing board. It would probably have the continuing task of keeping an up-to-date profile of the region in print, coordinate the accumulation of a massive bank of information on Appalachia, and guide researchers into neglected and sensitive areas. Probably it could also be in a position to take a fair amount of contract research related to Appalachia, especially from action-oriented agencies.

CHAPTER SEVEN

FINDINGS OF UNIDISCIPLINARY GROUP SESSIONS

SOME PROPOSALS FOR ACTION RELATED TO RESEARCH

A significant shift was made in the make-up of the conference in what was entitled "unidisciplinary" or special interest sessions. This was designed to give everyone the opportunity to take part in one of five discussion groups dealing with basic problems relating to poverty and development. The topics discussed were: (1) how to improve *health*—mental, protective, curative, family, that of various age groups— and *welfare*—how to reorganize or improve welfare and community action programs; (2) means for bringing industry to Appalachia—how to improve industry already in the region; (3) means for improving agricultural practice in the region, (4) how schools may be reorganized and how to improve the impact of education; and (5) means for improving housing and extending county and regional planning.

The participants in each group differed in number since each group attracted those interested in one of the topics. Since the discussants present did not record their names, only three persons and their affiliations are indicated, namely, the discussion leader, the recorder and the reactor (see Appendix I for identifications of these persons).

1. HOW TO SOLVE PROBLEMS IN HEALTH AND WELFARE

The group addressing itself to this topic divided into sub-groups and developed proposals relating to (1) health and to (2) welfare. Their proposals follow:

Project proposal (health)

- (a) Provide for a sophisticated regional TV network for health education with "unsophisticated" programs. This network could be implemented by a non-profit federally supported organization.
- (b) Reorganize health facilities to provide primary medical centers with satellite hospitals and clinics, supported by rapid transit facilities, such as helicopter services.
- (c) Develop services in counseling on family planning, career development, mobility, housing, family financial management and nutrition.

- (d) Develop nonprofessional local people who will be spokesmen for the needs of people (community workers). They will represent the indigenous in the community decision-making process.
- (e) Create a crops of physicians' assistants to work directly with physicians to improve the efficiency of small group medical practices. This may indirectly contribute toward increasing medical school enrollments.
- (f) Intensify efforts to find solutions to the environmental health problem (air, water, sewage, etc.)

Project proposal (welfare)

- (a) Conduct research on the effect and consequences of long-term public assistance programs upon family attitudes.
- (b) Standardize welfare programs around the country.
- (c) Develop public relations and information to interpret present welfare opportunities and operations.
- (d) Obtain data which will provide legislative bodies factual information which will assist them in changes in programs.

2. HOW TO BRING INDUSTRY TO APPALACHIA AND TO IMPROVE THAT IN APPALACHIA

(a) To bring industry to Appalachia should not be construed as meaning just to create new job opportunities; the goal is to raise income levels. Income may come from the use of land, capital, or labor. Furthermore, industry should be defined broadly to include the services—not just manufacturing.

(b) Higher per capita income may come from new income sources (new industry) or from migration of the population to income sources. Migrants tend to be poorly prepared to survive in a concentrated urban environment (Pittsburgh, Atlanta, etc.). We should search for smaller cities and towns in and around Appalachia, which have job opportunities, to act as halfway houses in this rural-urban migration, or as ends in themselves. We should seek out communities that require relatively few or moderate adjustments by the migrant, thus increasing his chances of making his move successful and permanent. As an alternative in easing adjustment to urban employment, we might encourage fairly long-distance commuting.

(c) Concerning migration to growth centers, the question was raised as to whether or not public policy to force migration from the hollows was feasible. TVA lakes were cited as evidence that such policy, though difficult to implement, was possible. A problem recognized is that the migrant has difficulty in obtaining a fair price for the land and homestead being abandoned. His remuneration is probably too low to be exchanged for equivalent housing at the new location.

Recommendations:

- (1) Seek to make local use of local capital. Give people opportunity to invest in their region and future.
- (2) Redefine "work" to counteract middle class standard that "not to work is evil."
- (3) Consider subsidizing people who migrate to job centers. Size of subsidy should consider the net cost to replace the abandoned home, and to allow adequate time to adjust to new location—training, finding a job, etc.
- (4) Encourage mining companies to allow people to buy their homes (the present 'company homes'). This leads to improvement in appearance of the houses, changed attitudes of inhabitants; and enlarged markets for home improvement and home maintenance supplies and services.
- (5) Since the availability of labor is a major resource to offer industry, firms locating in rural Appalachia should receive tax credit based upon labor use, not upon capital investment.

3. MEANS FOR IMPROVING AGRICULTURE AND AGRICULTURAL PRACTICE IN THE REGION

(a) Determine the economic structure (resource allocation to farming, commercial business, processing facilities, and manufacturing) which will maximize returns and employment of a given viable area to bring about higher levels of living.

(b) Make a feasibility study of low-income farms provided with advisory management, in a given viable area. The purpose of the study would be to measure the contribution of management and to discover factors or attributes of low-income farms that deter adoption of improved methods.

(c) Determine the optimum size of farms for given viable areas and what institutional arrangements deter the development of the farms.

Also, determine what institutional arrangements can be designed to facilitate the development of optimum size farms.

(d) Determine whether structural changes of the agricultural industry and of the banking industry (one example of the latter is the merger of small rural banks with large city banks) have been compatible.

(e) Determine whether loss of comparative advantage in the Appalachian Region has resulted from failure to develop mechanization adapted to a terrain other than relatively level land. Find out if labor saving equipment can be designed for relatively steep land.

4. HOW SCHOOLS MAY BE REORGANIZED AND HOW TO IMPROVE EDUCATION

In the group that dealt with improving education in Appalachia, the feeling pervaded that educators must be acutely aware of and sensitive to the environment in which they operate. It is important, for example, to develop strategies to work with those people in the community who constitute the power structure and who consequently have a great influence on local education. It is necessary that education be provided in terms of the perceptions of the people of Appalachia and their needs. The conviction was expressed that to be effective, education in Appalachia must be particularly close to the people whom it serves and that the community must be involved in the planning and implementation of educational programs.

Among the suggested problems to which we should apply our efforts in order to make education a more viable force in Appalachia were the following: (a) how we can more effectively utilize human and financial resources; (b) how we can better communicate research needs and how research can better be utilized; (c) how we can stimulate creativity in teaching and learning; (d) how we can influence community attitudes and beliefs; and (e) how we can determine the relationship between attitudes and social change.

One of the concrete suggestions that was made concerned the establishment of a model center where educational innovations and concepts might be tested and where an effort could be made to identify strategies that could be effective in working with the power structure.

One of the "reactors" stated that prior to the conference many had not been aware of the large numbers of people who are concerned with the problems of Appalachia or of the variety and extent of

research that is being conducted. It was suggested by reactors that the planning and implementation of programs for the improvement of conditions in Appalachia should not only deal with small pockets but should be comprehensive so that their impact might be greater and their effects more widespread. Concern was expressed that there are too-few trained people available to staff newly-established programs in Appalachia and that perhaps the major emphasis might well now be on training more personnel rather than on conducting more research.

5. MEANS FOR IMPROVING HOUSING AND EXTENDING COUNTY AND REGIONAL PLANNING

This group placed emphasis not only on housing but on planning. Their suggestions follow:

(a) Characteristics of and present drawbacks in housing planning: Any planning or housing project should be comprehensive—cover all fields of endeavor; be developmental in nature—chart future course of development; involve an active—programmed proposal; be in a well-defined region—which outlines the problem area; use a good and complete set of data—a good basis of information.

Present drawbacks to housing improvements include: building codes—antiquated and unreasonable; financing requirements—too strict, not enough subsidization, lacking mobile home restrictions; no involvement of poor in evaluating housing—their goals, norms, values; lack of options available to poor; lack of administrative personnel, mostly in planning.

(b) Proposed studies of poor people's reaction to various types of constructed housing. It was proposed that minimum standard housing units be provided for the lowest strata of Appalachia poor. To obtain these, interdisciplinary research should be focused on not only the poor but on the cooperation achievable from the particular Local Development Districts (LDD) where the housing is to be created. Each LDD group implementing team would be staffed with community organization specialists, sociologists or anthropologists, planners, architects, and economists.

Special emphasis would be placed on ecological and economic feasibility. Construction of units would be phased with occupancy research feedback on a continuing improvement cycle.

(c) Other project proposals: (1) Interinstitutional work on short course training programs in regional planning; (2) More degree programs in planning—to fill the demand for more fully-trained people; (3) Interinstitutional teams for developing plans for local development districts (LDD) in Appalachia; (4) Parallel studies of poor people's reactions to various types of constructed housing.

(d) A proposed Short Training Course on developmental planning:

Purpose of the course

To improve the knowledge and understanding of the nature of development planning and the planning process and to provide expertise for staff and volunteers involved in comprehensive planning by private and public organizations.

Methods of procedure

Develop the curriculum for a short course based on the advice of (1) academic people, (2) industrial or professional personnel, (3) the poor, and (4) informed and progressive representatives of the "power structure." Provide a self-improving mechanism in the organization of the course, to correct inadequacies of the content, organization, and approach in successive course sessions. The experience of institutions already having such short courses and broader curricula and expertise short courses should be utilized.

Personnel needed

All available disciplines related to developmental planning would be utilized. Along with the skills of specialists, the ability to communicate effectively and to operate audio-visual equipment would be required.

Area to be covered

A two-week course is envisioned, in which the personnel would travel from one location to another in "traveling circus" fashion. In each locality, local problems would be stressed by bringing in indigenous experts and lay people as reactors.

(e) A proposal for interinstitutional teams to develop regional plans for local development districts (LDD) in Appalachia:

(1) Statement of purpose:

To provide planning assistance for local development districts in Appalachia.

(2) Method of Procedure

Locate and assemble experts in various phases of planning who can be found in universities, government offices, etc.

Divide experts into teams whose efforts will be directed toward specific areas.

Provide an administrative and financial setup for each team especially in conjunction with existing staff in each LDD.

Implementation

Financing in Appalachian Regional Commission, State Planning Office, Extension Divisions of Universities. Personnel for proposal by above institutions.

Personnel needed

Regional planners, engineers, economists, housing people, resource planners, sociologists, political scientists, foresters, computer aids.

Sample or model area

No specific one. Depends on local interest and location of personnel available.

Part IV

THE SECOND MANDATE

This part provides the second national mandate, and that for Appalachia as well: the mandate given by administrative and legislative branches to the Appalachian Regional Commission. The principal speaker is introduced by Dean W. E. Skelton, who states what he considers is important in the role of the action agency. Dr. Skelton stresses the need for coordination between action and research agencies. This need is elaborated by Mr. Ralph Widner, Executive Director of the Appalachian Regional Commission. Mr. Widner discusses what the Commission has done and what the research institutions of the region should do in response to a recognized need. This part of the text is appropriately *a call to action*.

155/156

CHAPTER EIGHT

A CHALLENGE TO ACTION

The Dean, Extension Division, VPI introduced the second principal speaker. In so doing, he expressed the philosophy of the relationship between research and service held by his institution.

A

TRANSLATING RESEARCH INTO ACTION AND SERVICE

William E. Skelton

In visiting with some of you this afternoon, I was asked several times: "Why is the Extension Division so interested in this conference?" Since this question was asked, I would like to take just a few minutes to answer it before introducing the speaker of the evening.

It is important to note that the Research and Extension Divisions of V.P.I. jointly are sponsoring this conference. In this way, the Divisions plan and work together so as to be of maximum assistance in meeting the needs of the people.

An effective and aggressive research program is essential for a strong extension effort, but it is through extension that people learn how to use and apply the knowledge gained through research. In my judgment, it is not one or the other, but it is a combined effort.

Action-oriented research provides the procedure which makes it possible for extension and research to work closely together. In extension, a large number of our staff hold appointments in both extension and research. For selected staff members and certain areas of work, I feel that this is a good combination.

In dealing with problems of low-income and disadvantaged families, it appears to me that attention should be given to how to reach and motivate these people.

The research and extension functions call for the closest of working relationships between these two since there is no fine dividing line between their functions. Research depends partly on extension for

information on problem areas in which research is needed, and extension must have research results if it is to carry out its responsibilities.

In my judgment, we need combined resources of the two so as to achieve the best results in a minimum time.

These comments do not develop this viewpoint in depth, but they do indicate direction intent. This depth undoubtedly will be plumbed by the speaker of the evening, as he now addresses us:

B

"RESEARCH AND PLANNING FOR REGIONAL DEVELOPMENT"

Ralph R. Widner
Executive Director, Appalachian Regional
Commission, Washington, D.C.

Shortly after the Appalachian Regional Development Program was enacted by Congress in 1965, the new Appalachian Regional Commission recognized that, in many respects, Appalachia had been "studied to death" during the last several decades without any discernible improvement in the fortunes of the people of the region.

We recognized that the basic directive from Congress and the people simply was: "Act!" It was apparent that neither Congress nor the people would be content with still more studies.

And so "Act!" we did.

An Appalachian Development Highway System to facilitate mobility within Appalachia and link the region to national markets was planned, agreed upon, and started under construction.

The states reached for long-unimplemented plans in education, health, and public facilities that had been mouldering on their shelves for lack of financial resources, and they were implemented.

Agricultural experts went out to the farms where erosion was a problem and, using the new Appalachian assistance, contracted with farmers to help curb such problems on their lands.

A few states had an age-old backlog of needs to halt mine subsidence and mine fires around and under important cities; a beginning, with the new Appalachian help, was made on these problems, too.

New industrial parks were started and roads and facilities provided to help them attract new enterprise.

Airports were built.

New programs were started to train desperately needed manpower in such fields as health.

Almost half a billion dollars was spent for action programs in Appalachia under the Appalachian Regional Development Act during the first three years. And this is but a portion of the overall amount expended in the region by the whole range of new programs designed to help bring an end to the underdevelopment, unemployment, and poverty in the region.

Yet, while it was perfectly possible for us to embark on many action programs without more prolonged studies, it was apparent to all of us that acting upon existing plans and obvious needs would not result in a permanent solution to the nagging problems of Appalachia.

It was obvious that new ways would have to be found to determine appropriate policies and investments if they were to be addressed specifically to the problems and the potentials of Appalachia.

The first step was to cull existing knowledge about the region and its problems. We asked West Virginia University to prepare a bibliography of Appalachian research. That tome when completed totaled 528 pages and weighed $3\frac{3}{4}$ pounds. The University developed a system of electronic storage and retrieval for keeping the bibliographic file current and, as you might imagine, the file mounts daily.

An examination of its contents, however, conveys immediately an impression of irrelevancy. Surprisingly little of the work done on Appalachia during the past several decades contributes usefully to decisions about how to solve the problems of the region.

There are several reasons for this phenomenon, in my opinion, and they are not peculiar to Appalachia. They have to do with the way government and the universities have been organized to do their respective jobs in the past. Before discussing those problems and suggesting some alternative solutions, allow me to define my terms.

First of all, this Conference was convened to discuss research *as a tool to solve problems* and not as a "process" to be taught to students. Both have their place in the university, but not in our discussions tonight.

In most of what follows we will be talking about problem-solving research; about research which can help the decision-makers of society take intelligent, well-informed actions to meet an objective. With a

few very obvious exceptions-- the Agricultural Experiment Stations being among the most noteworthy--the execution of such research has not been the strong suit of most universities.

After all, the *principal* role of most universities is instruction. It is true that in teaching research as a technique, the university must actually engage in research in order to familiarize the student with its application and utility. But rarely is this research framed in a context that makes it useful in problem-solving. Indeed, it is often the legitimate position of many universities that they *not* assume a position on alternative courses of action since this jeopardizes the university's position in the community.

It is precisely this posture which until recently limited the university's ability to be an effective contributor to the decision-making process.

There are other reasons, too. The universities, like government, are frequently too fragmented in their capabilities to contribute usefully to broad social, economic and political decisions.

Within the university we have the fragmentations growing out of the separate disciplines, for example. It is almost as if, in teaching specialized skills to our students, we also equip them with a special set of blinders that make it impossible to view a problem from any but the imperative of their own profession. Yet we all must note that the real world can rarely be described or dealt with in such narrow terms. The gap between the political scientist and the physical scientist, between the economist and the sociologist must be bridged in the university, as well as in the world at large, if they (professors) are to play their full and proper role in decision-making.

There is another kind of fragmentation: that which is *between* as well as *within* universities. Everybody wants to be a Harvard or Cal Tech; every institution desperately needs additional financial resources; and so with the tacit encouragement of the existing federal grant-in-aid structure there is a competition among universities for prestige research funds in much the same way that there is competition among advertising agencies for a prize soap or whiskey account.

But universities were never meant to be economic competitors in the market place. They are broad social-purpose institutions that nationally should complement and reinforce, not undercut, one another. Our intellectual resources are too scarce for us to squander them in some academic version of the Darwinian struggle for survival.

This Conference is an excellent example of how we can meet some of these limitations imposed upon us by the past. First, it has stated

the broad problems to be solved; secondly, it has called together a host of institutions each of which may have within it some of the talent and resources needed to help solve those problems; and, thirdly, it recognizes the need for interdisciplinary approaches.

Speaking for the government side of the equation, I do not come to this gathering with clean hands.

The government at all levels is more guilty of fragmentation in the past, if that is possible, than the universities. We are subdivided into a host of functional agencies, frequently overlapping and competitive and all too short of the competent personnel required to use research intelligently.

At the local level most of our jurisdictions have been too small in scale and financing to utilize modern science to solve problems.

At the state level until recently we have been "asleep at the switch" in our determination and ability to use such knowledge.

And at the federal level with the notable exceptions of defense, space, and the bio-medical fields, we have been "passive" sponsors instead of "active" users of research.

All this is beginning to change and some of the most important symptoms of that change are right here in Appalachia.

The first requirement for the coherent and systematic use of science and technology to help solve social and economic problems is that there be a client-sponsor for such research; someone who can speak for the community in deciding what questions must be asked and what is to be done with the answers and who has the ability to pay for finding the answers and to use them once found.

The second is that some public mechanism is required to manage and utilize such research that is not hampered by the provincialisms of special purpose agencies or narrowly defined disciplines.

In other words, it is the problem of government today to develop broad multiple-purpose administrative mechanisms with the ultimate capacity to bring a systems approach to bear on pervasive social, economic, and political problems.

By definition such mechanisms must incorporate representation from the people to enable them to select and choose between goals; they must link the policy-makers at all levels of government; they must have the competence to plan and to use expertise wherever it

is found to deal with a problem; they must have the wherewithal to carry out their plans; and they must have the power to enforce them.

Appalachia alone among all the large regions of the country has made a step in that direction.

The new Appalachian Regional Commission is made up of the 13 governors of the Appalachian States and a representative of the President. This affords a unique mechanism in which a common state-federal approach to development of the region can be hammered out.

At the local level, the same mechanism is being developed at the multi-county level forming a similar bond between local jurisdictions and the states.

Thus, there is resident in these new institutions the ability to mobilize all resources of government.

Then Congress conferred upon this new creation responsibility for developing plans and programs and authorized over \$1.5 billion to help carry out those plans. In addition, the power to coordinate other federal, state, and local funds for the same purpose was granted.

Thus, Appalachia went the first step toward more effective use of research and planning to embark upon broad solutions to regional problems.

The next question was how to use this new arrangement most effectively to achieve permanent, long-term solutions to the region's problems.

This called for a new approach to public investment. In effect, we had to try and determine realistically Appalachia's potential role in the future American economy and use public investments insofar as possible to make those potentials a reality.

But Appalachia is a big region, as big as California in area and population. Within that region are communities at all stages of economic development. Obviously, the right policies for one area would not necessarily be appropriate for another. So general regional objectives were purposely left unquantified.

The goals are: through a carefully planned series of public investments, to make it possible for Appalachia's people to compete for opportunities wherever they choose to live and, insofar as possible, to provide those opportunities within the region itself.

Thus, we put people first, square-feet second.

We defined the opportunities we sought as increased incomes, greater employment opportunities, and improved standards of living.

To make those goals specific it was then necessary to sub-divide the region into reasonably coherent economic, social, and political multi-county units. These were to be the basic planning and development areas of the region and were to be used by all federal and state agencies engaged in helping to plan Appalachia's future development.

The states determined these areas and ultimately 60 were designated as state planning and development districts.

The next step was the most difficult in some respects.

The Appalachian Regional Development Act was the first American endorsement of the "growth pole" concept of economic development: an approach now being employed in many countries, but never adequately tested, particularly in a nation so highly urbanized and industrialized as the United States.

We discovered a recurring problem: our public commitment to action had outstripped the tested theoretical concepts of the disciplines. Urban economics, in any formal sense, is barely ten years old. It is really a collection of "schools of thought" rather than a hard, well-formulated theory of development. So we fell back on pragmatism.

Each state attempted on the basis of transport, and commutation, and retail, wholesale, and growth patterns to determine within each of the districts the probable areas of significant future economic activity. In some cases, university resources were used to help identify them, but most universities were reluctant to be engaged in what was bound to be a controversial enterprise.

In any event, after a year and a half the states had identified areas where future growth was most likely to occur and these stand up quite well against most tests that can be applied.

The centers were identified in a hierarchy. First, there are Regional Centers serving large areas encompassing several districts where investments should be designed primarily to be "region-serving." Then there are Primary Centers where the largest part of the employment base for a district is likely to be located; here investments should be designed to enhance the identified development opportunities. Finally, there are Secondary Centers where substantial economic growth is not likely, but from which basic services must be provided to reach large, isolated rural populations.

Once the districts and their centers were determined, the problem was then to assay the special problems and potentials of each and develop an investment plan which over a period of years would remove barriers to growth and capitalize on special opportunities for growth.

Several steps were required. We had to estimate the manufacturing sectors for which the Appalachian Region had a significant potential, determine their locational requirements, and then determine *where* in the Region they were most likely to locate and what impediments stood in the way of such areas being competitively attractive. Twenty-five industrial sectors were identified and a contract was signed with one of the best known industrial location consultants in the country to complete the analysis. Similar studies were undertaken of the service needs and potentials of the region.

Simultaneously, a series of employment, income, and population projections was developed and detailed descriptions were prepared for each of the planning districts. By the end of the second year of the program we were beginning to know enough about the economic anatomy of the region to make some judgments about the first priority investment needs in each area of the region.

Generally, Appalachia seemed to consist of four different kinds of areas with different needs and potentials and requiring different development strategies.

The first is *Northern Appalachia*, which encompasses the southern tier of New York and most of the Allegheny Plateau area in Pennsylvania and Maryland, northern West Virginia, and southern Ohio. This part of Appalachia has problems related to the transition from dependence on the coal-steel-railroad economy to new types of manufacturing and service employment. Early emphasis has been placed upon post-high school and adult occupational training to facilitate this transition. Many of its communities suffer from environmental problems which are the legacy of past industrial and mining activities, and include mine drainage pollution, mine subsidence, blight from strip mining, and mine fires and flooding. While there are deficiencies in public facilities, they are not as acute as in other parts of the region. Instead, community renewal and environmental improvement is the most pressing impediment to future growth. High priority has been given to solving environmental problems through the use of mine area restoration, water pollution control, supplemental grant funds and other federal and state programs. In addition, local governments in

the area, with assistance under the Appalachian Act, are considering organizational and financial reforms to improve their effectiveness.

The second of the four areas is *Central Appalachia*, covering 60 counties in eastern Kentucky, southern West Virginia, southwest Virginia, and northern Tennessee. These states have determined that urbanization must be accelerated if adequate services and employment opportunities are to be developed for the million and a half people now living in the area. The choice is between faster growth of communities and continued out-migration. While this will ultimately call for a comprehensive "mix" of public investments, four initial priorities have been established: transportation, education and health, and concerted development of key communities in the area. The largest share of the Appalachian Development Highway Program has gone into this topographically rugged area. Heavy emphasis is being placed on high school and post-high school vocational and technical education and complementary facilities such as educational television and some two-year colleges. The comprehensive health demonstration program, under Section 202 of the Appalachian Act, will cover 75 percent of the population in Central Appalachia, where the health needs are the greatest in the Appalachian Region.

The third major subregion is *Southern Appalachia*, which covers Mississippi, Alabama, South Carolina, and parts of Tennessee, North Carolina, and Virginia. Here, industrialization and urbanization are occurring quite rapidly, converting an agricultural area into an industrial one. New jobs are being generated in such fields as apparel, textiles, and food processing.

The states of this area have recognized several priority problems. The first is the need to develop an educational system capable of providing a labor force competitive with that of the nation as a whole. The states involved have recognized the need to provide high school and post-high school level vocational education on a large scale if large numbers of trained technical employees are to be available for some of the apparent growth industries in the south. New industries now developing in Southern Appalachia require the development of higher education facilities as well as medical education and training. A second priority is public facilities to realize the full potential of growing industrial communities which need water treatment facilities, water supply, and a variety of other public services.

The fourth region is the *Appalachian Highlands*, reaching from northern Georgia, through the Great Smokies of Tennessee and North

Carolina, into the Blue Ridge of Virginia, and the Alleghenies of West Virginia, Maryland, Pennsylvania, and New York. This sparsely populated territory has its greatest potential as a recreation, tourism and resource area for the rest of Appalachia as well as the remainder of the eastern United States. The Appalachian States, working with federal agencies and the Commission, are attempting to determine how much potential can be properly exploited through comprehensive recreation complexes in which private capital is involved.

Now, at the end of the third year of the program, we are engaged in refining our understanding of what must be done in each specific area of the region—the 60 planning and development districts.

So far, as you will have noted, the imperatives of the economist have been dominant. But as judgments become more refined and we narrow our attention down to communities and neighborhoods and specific programs, projects, and individuals, the economist must give way to others who can help design appropriate projects; to the *sociologist*, the *social psychologist*, the *environmental scientist*, the *land use planner*, the *housing specialist*, the *physical scientist*.

And the efforts of all these, as we deal comprehensively with the aspirations and problems of individual persons, must be harmonized within the broader framework.

As the process proceeds we begin to see how the special characteristics of each discipline fit together in one coherent whole.

Once we have the capacity to harmonize the contributions of specialists in these fields, the problem becomes one of identifying those specialists most able to help on a given problem.

And here we come to the next piece of social invention required in Appalachia. *We must find a way to mobilize our university and other research capabilities in much the same way that we have mobilized our governmental resources.*

No one institution has a monopoly on the expertise needed and it would be foolish for any one institution to attempt to develop it. Instead, we must recognize that within the universities of the 13 states are a number of strong individual and institutional competencies which, as a network properly used, can contribute an enormous amount of knowledge to development of the region.

We should utilize the strengths of each to complement the others. By selective use and support of competence wherever it exists regard-

less of institution, it would be possible to develop a network competitive with any in the nation. From a collection of competing institutions, the contributions would be far less.

What is required, however, is the ability to administer such an inter-institutional approach.

We cannot view problem-solving research as "busy work" for students; it must not be sought as a way of subsidizing some graduate assistants over the summer. That kind of need must be met in other ways.

We are talking about the *utilization of the best expertise* to help solve the region's problems, since the people of the region deserve only the best.

The Appalachian Regional Commission has given this problem considerable thought. Two rather thorough-going explorations of a proposed "Appalachian Institute" have been undertaken.

In addition, a Committee of the National Academy of Sciences, on which I have been privileged to serve, has carried these investigations further and applied them to needs throughout the country.

We have concluded that some new form of regional institution or "laboratory" is required to supplement and reinforce regional *political* bodies in bringing the best expertise to bear on regional problems. We view it as absurd that a society which has systematically mobilized its talents and resources to put a man on the moon or photograph Mars has not done the same to meet the far more intimate problems of our daily life on this planet.

In recommending a new regional research alliance, however, we do not espouse some great new building filled with researchers working away on regional research. Such an organization would very rapidly outmode itself as it discharged its initial missions. For it then would have on a board a large number of researchers whose skills were not needed for the next problem. To meet the problem, it would have to keep them busy. To keep them busy, it would have to look for more contracts on the same subject. Before long it would become a "job shop" and any systematic utility it once had for assisting in decisions on regional development would go by the board. In short, it would become another bureaucracy.

Instead, we might think of *an administrative arrangement with a small staff and a relatively few resident experts in the disciplines most relevant to regional development*. These experts would not only assist the political body in framing the right questions, they would also know

who the experts are in any institution most capable of finding the answer to those questions. They would have the capacity to manage the contracting for such research. And they would be able to interpret the results to the political body.

Such a device should be designed so it could receive private as well as public support and it should be a device of the universities in the region as well as of any regional political body.

Thus, the body of experts engaged in problem-solving research would change as the nature of the research changed and the relevance of the operation to regional needs could be maintained.

With what kind of questions would such a body help us deal?

Look at the range of concerns currently engaging the research efforts of the Appalachian Regional Commission and you can sense the array of challenges which confront us:

In Regional Analysis:

Input-output and linear programming models to determine goods and services which can be competitively produced in Appalachia.

In Regional Planning:

A comprehensive development plan for 60 counties in eastern Kentucky, southern West Virginia, southwest Virginia, and northern Tennessee.

A recreational development plan for 10 states in the Appalachian Highlands.

In Education:

Occupational training needs to 1985 in Appalachia.
Development of multi-county school services.
Design of substantial teacher-training programs.

In Health:

Design of program for dealing with shortage of para-medical manpower
Design of special programs affecting child development.
Design of comprehensive health services.

In Transportation:

Plan for maximizing controlled development along Appalachian highways.

Design of an air service system for Appalachia.

Use of rail systems to deliver social services.

In Community Development and Housing:

Development of sponsors and sources of capital for new housing.

Renewal and development plans for small cities.

Modernization of local government.

Improving availability of private capital.

Studies of taxation as impediment to growth.

In Social Science:

Mobility of labor.

Impact of rural-urban migration.

In Natural Resources:

Plan for development of water and related land resources.

Techniques for abating mine drainage pollution.

Organizing timber supplies to promote development of wood-using industry.

Techniques for detecting levels of air pollution.

The list is a long one and we could go on, but the challenge is clear.

We have the opportunity to create something better in Appalachia through creative application of our energies to the needs of this region. The approaches of the past will no longer do.

If we try and if we succeed, we will have produced an irony.

Out of Appalachia, for so long the low man on the American totem pole, will have come a venture that would show the way to the rest of the country.

**PROGRESSION OF COMMISSION PLANNING AND RESEARCH
1965-1967 STEP I**

REGIONAL ANALYSIS AND PROGRAM DEVELOPMENT

Purpose: To determine Appalachia's present and potential place in the national economy and the impediments to growth.

Product: Regional programs.

Work Plan:

- Population, employment, income projections.
- Delineation of planning and development districts.
- Determination of areas with potential for future growth and associated rural hinterlands.
- Health, education, and manpower employment.
- Transportation plans.
- Plans for water and related land resources.
- Determination of general industrial potentials.
- Determination of service needs.
- Determination of supply and needs for public and private capital.
- Determination of governmental impediments to growth.

1968-1969 STEP II

AREA ANALYSIS

Purpose: To determine general opportunities for growth and barriers to growth in each of the planning districts.

Product: Information for incorporation into state and district plans which relates district potential to regional and national markets.

Work Plan:

- Population, employment, and income projections.
- Industrial linkages offering opportunities for growth.
- Service needs and potentials.
- Site availability.
- Manpower needs.
- Health and education needs.
- Public facility needs.
- Housing needs.

- Resource and environmental problems.
- Public-private capital availability.
- Local organizational problems.
- Special social problems/characteristics.

1970-1971 STEP III

AREA PROGRAMS

Purpose: To develop and implement an investment program to capitalize on discerned opportunities or remove barriers to economic growth.

Product: Recommendations for state and district investments.

Work Plan:

- Manpower program.
- Health and education programs.
- Community development plans.
- Industrial development (including site development).
- Development of urban services.
- Environmental improvements and controls.
- Modernization of government services.

Concurrent with
Regional Plans and Programs

Part V

THE CONFERENCE RESPONSE

This part includes the summarization of the conference responses. Buttressed and once more challenged by responses from representatives of federal agencies, who brought "news" on method and philosophy regarding Appalachia, are summaries of discussion from the interdisciplinary, interinstitutional, unidisciplinary (or problem solving), and "reactors" groups, in which each tells explicitly what needs to be done in research and by action to solve the hard problems of poverty and development in Appalachia.

There has been concentrated the essence of some of the recommendations into two resolutions—for setting up some form of Appalachia-wide cooperative structure; and for providing a geographical and functional base for research and action in the region.

The final chapter, furnished partly by the Appalachian Regional Commission and containing as another part the list of published materials displayed at the conference; is followed by two appendixes—one on "who took part" and one on briefed research abstracts; and an index, to round out the entire proceedings, to help find references to details anyone may be interested in checking.

CHAPTER NINE

NEWS FROM FEDERAL AGENCIES REGARDING APPALACHIA

- A. Introduction (W. B. Harrison, VPI)
- B. Introduction to the Panel (Per G. Stensland, Milbank Memorial Fund)
- C. The Role of Welfare and Rehabilitation in Appalachia (Nathan E. Acree, Welfare Administration, HEW)
- D. Some Roles for Education in Appalachia (Alice Scates, Bureau of Research, USOE)
- E. Some Roles Played by the Department of Agriculture in Appalachia (Paul Jehlik, Cooperative State Research Service, USDA)
- F. The Role the Department of Housing and Urban Development Plays in Appalachia (T. F. Rogers, Office of Urban Technology and Research, HUD)
- G. Social Barriers to the Experimental Appalachian Health Program (Donald Madison, USPHS)
- H. Other Considerations in the Implementation of Health Programs for Appalachia (Harold Goldsmith, NIMH)

After the deliberations had been in process for two days and nights, it was felt that the discussants might benefit from the views of representatives of federal agencies whose responsibilities included the funding of research on Appalachian problems. A panel of these representatives was organized. Members were invited to discourse with one another and the audience. The panel was hosted by the Dean of the Research Division, VPI, who introduced its moderator, the one non-federal participant. The panel moderator, in turn, launched the panel deliberations. In the pages that follow, only the primary remarks of the speakers are reported. The exchanges which occurred between them and with the audience have been incorporated in the summary findings and recommendations to be given in the next chapter.

A. Introduction: (W. B. Harrison, VPI) Before turning this session into the hands of the Panel Moderator, I would like to speak for a few

moments on "The Probable Future of the Cooperative Research Community."

It appears to me that the number of interested agencies is ample, and the funds available are ample to address a large portion of the problems which we can identify in Appalachia. The major difficulty seems to be in our ability to address these problems with sufficient effort to insure effective solutions. By sufficient, here, I refer to organizational skills as well as the mobilization of personnel and facilities representing the relevant disciplines.

I have been very favorably impressed by some of the remarks attributed to Dr. Olaf Helmer of the Rand Corporation in the context of forecasting the future. In an article he wrote in *SCIENCE JOURNAL* last October, he makes some remarks which seem especially pertinent to this conference. I quote as follows: "In view of the accelerating momentum of its capabilities, the research community, in particular, is realizing the enormous power and responsibility it has in selecting among the multitude of possible futures of our society those whose probability of occurrence it ought to influence through appropriate policy recommendations." As I view this thought, in the context of this conference, it seems to me that we are assembled here in an effort to determine the future of poverty in Appalachia by bringing to bear the power and responsibility of the scientific community. Another way to say this is that we are concerned enough about the current situation that we wish to improve the future environment in Appalachia by the research we do now.

Let me quote again from the article by Dr. Helmer. "There are signs today that the complex problems involved in shaping the future of our society are multidisciplinary in character; that their solution will, therefore, require the collaboration of scientists and technologists from many different fields. Yet thus far little more than lip service is being paid to this need for interdisciplinary cooperation, partly because effective methods for encouraging and facilitating such joint attacks on problems are still in the exploratory stage." Let us think about this idea for a moment. We have seen major problems addressed successfully when sufficient interdisciplinary effort is applied. At the moment I am thinking of technological problems, such as the development of the atomic bomb. Though the required disciplines are different. I cannot believe that the problems of Appalachia are really more difficult to solve than the vast problems related to the successful achievement of the production of the atomic bomb. The analogy is not good, but at least it suggests that if proper organizational skills are applied, the

collection of various disciplines operating together may be more effective than the sum of the individual disciplines operating separately. This is the essence of the hope for multidisciplinary approaches to any problem.

The previous discussions in this conference reveal the multidisciplinary character of the problems of Appalachia, and, accordingly, the stage is set for the development of a mechanism for multidisciplinary approaches to the solution of these problems. This is really the basis on which earlier I made reference to the organizational skills needed for the various required disciplines are certainly represented in the personnel in attendance at this conference. What is lacking is a device which will bring these skills to bear collectively on the major problems before us.

In closing my remarks, let me quote one more time from the article by Dr. Helmer. "The next great breakthrough in the social sciences, comparable in significance to such physical science breakthroughs as the creation of artificial life or the taming of thermo-nuclear energy, may well be the construction of the theory of organizations that succeeds in dealing rationally with situations of inter-personal or international conflict." Indeed many of the problems of the Appalachia area can be called social. The major problems are not due to inter-personal conflict but they give support to the concept that improvements can be effected by increased inter-personal harmony. We are talking about motivation, security, pride of achievement, opportunities for self-improvement, and many other personal and social elements in addition to technological matters related to transportation, air and water pollution, housing, resource development, and the like. I believe it is appropriate for us to think of Appalachia as a great laboratory in which research on these problems may be conducted, and from which lessons can be learned which have applications throughout the country and the world. The urgency and importance of the task before us is clear, and we are indeed hopeful that the results of this conference will move us a step forward in achieving some of the desired goals.

It is now my pleasure to turn this program over to Dr. Stensland, who will introduce our panelists and proceed with this morning's deliberations.

B. Introduction to the Panel: (Per G. Stensland, Milbank Memorial Fund). Dr. Harrison has given us a strong backdrop for our discussion. He has focused attention on the ever present need for us to recognize "that improvement can be effected by increased inter-

personal harmony." To me, his remarks should touch a keynote for us, for they stress the importance of communication. As we proceed now to give the views of the institutions we represent, let us hope that we can, in fact, facilitate the communication needed among all of us.

Twenty-six years ago I took a night train from Richmond to Raleigh. There were two of us in the dim-lit, rattling coach, that night early in the war: a poor Swedish scholarship student in a rich new country, and a drunk mountaineer. All I understood from him was that he was going to the induction center. All he understood from me was that I was a foreigner. We had practically no communication; our common bond that night was bewilderment.

We have more going for us this morning: not only has my English improved, but we are here because we believe we *can* communicate.

We have been hearing a persistent note played: the little prefix *inter*. We have walked across our professional boundary lines and taken part in *inter-disciplinary* sessions; we have stepped out of our ivy-clad castles and met in *inter-institutional* parleys; we have *inter*acted. And it was all *interesting*.

I should like to try a new note this morning: the little prefix *pro*. I hope we shall now, for a couple of hours, *prognosticate* and *propose*, while *proceeding* toward plans, hopefully in *progressive* spirits. We shall spend a few minutes looking at *provisions* for the future. Rather than re-act, I hope we shall *pro-act*.

I have no axe to grind. I belong to no government agency, no university, no interest group. I have no territory to defend, no policy to promote, as some of you do, suggested by either profession or institution. But I share a commitment with you. We are all charged by a deep concern, inspired by a sometimes vague, sometimes gloriously clear pride in the human race. The concern is about inequity, incapacity, inequality, all focused on the condition of poverty. Our pride thrives on difference and variety, but poverty is difference with a vengeance. I sense, as you do, that our very humanness is in jeopardy.

Facing poverty, I have felt confused, ignorant, and sometimes helpless; I know you have too. Often during these days here we have displayed this confusion and ignorance—in the midst of a conference on research we have often felt helplessly empty of facts, data, structure. But still we have proceeded, not receded.

Now we are at the point when one usually says, with embarrassed smile or triumphant smirk: "Who is going to pay for all this?" All

kinds of folklore and old sayings crop up: he who pays the piper calls the tune . . . where are you going to get the money . . . we can't afford . . . skyrocketing costs . . . priorities . . . and many more. This morning I have the pleasure of presenting five pipers, and hopefully some new tunes. Our group is not big enough to be an orchestra, and I can't guarantee the harmony, but this is the new music.

While orchestrating the theme this morning, I am going to ask our panel members to address themselves to some of the ways their agencies have tried and are trying to overcome difficulties found in Appalachia. We are all interested in hearing their comments regarding: how the federal government is encouraging and aiding research efforts in and for the region; examples of programs they are sponsoring for Appalachia; and how they are *promoting* Appalachia. Once again then, let us bear in mind that in all the melodies to be played this morning there will be one constant note: we will be talking *pro* the future. And in so doing, we will be furthering the efforts of this conference to enhance communication between ourselves.

C. *The Role of Welfare and Rehabilitation in Appalachia.* (Nathan E. Acree, Executive Director, General Research in Development, Welfare Administration, HEW).

The staff in HEW looks upon itself as just the Washington office of your local welfare agency. We are there to make it possible for the local officers to do a better job. That is why we are doing research, and why our research is very wide. We are interested in removal of social and cultural barriers. We are interested in how we can better serve anyone anywhere — Eskimos, people in Appalachia, the Navajo Indians, or the people in Harlem, in Topeka, Kansas, or in the bayous in Louisiana or wherever the need might be. All of our research is developed around helping more people in a better way.

In our research program we always try to test the limits. We try to research things that our agencies are not yet trying to do. We feel a prime responsibility to try out new ways of helping people to become self sufficient. This implies to us that we must do something more than rehabilitating in the conventional meaning of the term: more than providing somebody with crutches, or more than providing some one having an orthopedic handicap with means to overcome his handicap. Our concept of rehabilitation goes beyond the concept held in 1917 and 1918. It includes being concerned with the mentally retarded, the mentally ill, the person with cerebral palsy, and more recently now, to a certain extent, it includes *the disadvantaged*.

For example, we have a project in Wood County, Wisconsin now going into its fifth year, in which we are studying, with our state agency, how much could be accomplished and what would be involved if all the money and all the staff one needed were made available. We are interested in determining what it would cost and what staff changes could be made and what kinds of patterns of service would be required if all the disadvantaged were serviced effectively.

Out of these efforts have come some legal amendments — the 1965 Rehabilitation Amendment — which allowed us to work with more or less disadvantaged persons who have medically diagnosable conditions. The 1968 amendments to the Rehabilitation Act, signed by the President, provide a new program, not yet funded nor entirely “debugged,” which will be operated somewhat as is our basic support program. This program will be supported by formula grants to the state and will include the disadvantaged (newly defined to include the individual, who by reason of his youth or advanced age, low educational attainments, ethnic or cultural factors, delinquency records, or other conditions is possessed with barriers to employment). This service to the disadvantaged is a new area of activity for us, so we are going to have to learn about the conditions affecting the way our federal and state agencies deliver service required to these kinds of people. We are broadening the definition of “rehabilitation,” then, to include the taking of a person who has some barrier to employment and trying to help him overcome this barrier and get back to productive and satisfying living.

D. *Some Roles for Education in Appalachia.* (Alice Scates, Bureau of Research, U. S. Office of Education).

The Bureau of Research, Office of Education, supports a variety of activities, all of them seeking to improve education through a variety of research and development projects and programs. These activities are designed to expand knowledge about educational processes, to develop new and improved educational procedures and techniques, and to disseminate the results of these efforts to educators and to the public. We also train researchers from different social science disciplines to work on problems in education. The Bureau had approximately \$90 million available for these purposes during the 1968 fiscal year.

In order to be eligible for support, any activity must be research or research-related rather than being an operating activity. The purpose must be to develop new knowledge or new procedures in education. These projects and programs fall into five general categories: research, development, demonstration, dissemination, and research training. They

may be carried on through individual projects, research and development centers, or regional educational laboratories, all of which are initiated through the Office of Education.

There are, also, nine regional offices of the Department of Health, Education, and Welfare in which there are research advisors who handle (1) the small project program for research efforts needing only limited funding, and (2) the research development program for institutions which have not previously done much research but which do offer teacher training.

It is hard for me to select only one illustration of the kinds of things we do, but, in terms of Appalachia, we might look at what is called the Educational System for the Seventies. The purpose here is to develop an integrated high school curriculum which will meet the needs of all students and which will enable them, when they graduate, to have a variety of options open to them. If they choose to go directly to work, they will have some minimum vocational skill which will enable them to get a job. If they choose to go to a community college, they will be able to meet the entrance requirements there. And, if they have the opportunity to go on to a university or a four-year college they will be able to qualify there also. This total curriculum will build on many of the projects which we have been supporting in the past; both in the academic subjects and in the up-dating of various vocational curricula. Several of these projects are or have been carried out in Appalachia. For example, there are some dealing with vocational agriculture, up-dating the curriculum as it is now being offered and turning it to more modern uses such as developing skills which relate to many of the problems that marketing procedures bring today. Hopefully, all of these various courses will be available to a high school so that it can select from among them whenever the need arises, thus meeting the needs of a variety of students.

We are also doing a substantial amount of work in vocational guidance, since one of the major problems in education has been that students have not had an opportunity to learn about and understand all of the options open to them after they graduate from high school.

If there were no barriers in terms of funding, I would like most of all to see the Bureau of Research start a substantial program of research and development in adult education. This is the area which has been left practically untouched, but the need is obvious. What I would like to see is a program which would begin to build adult education into such a successful and well recognized area that everyone of us here in this room would accept it as a natural part of our daily lives. We

would not have to wait for a meeting like this to find out some of the kinds of things we want to know about what new knowledge has been developed. Rather, we would have resource centers — learning centers — where we could go in our free time to study individually or to join in groups learning what we want and need to know to perform better as individuals and as members of society.

E. Some Roles Played by the Department of Agriculture in Appalachia. (Paul Jehlik, Cooperative State Research Service, U.S.D.A.).

The opportunity of participating in this conference gave me the privilege of sitting in on the discussions of several groups. In each instance there was lively discussion and a serious concern regarding the poverty problem as well as an eagerness to get on with the task of doing something about it.

Seeing the diversity of institutions, disciplines, agencies and organizations represented and the speed with which everyone got down to the task at hand, speaks highly for the organization of this conference and for the concern all of us share. We have all profited by the exchange of ideas and have become aware of many problems in need of research attention.

It is quite clear that to be most effective and to insure highly productive results, action programs aimed at the poverty problem need to be undergirded with prior research information and then followed up with continuing research to evaluate and determine methods and means by which programs might be improved. In view of the scarcity of highly relevant and current research results, and the need for immediate action, it is important that a research component be included in action programs from their inception. It should be the responsibility of research workers to assemble and to analyze data and experiences as programs move forward.

Discussions in this conference dealt basically with three categories of problems: (1) the human resources, (2) community or area resources and (3) resources bearing on the development of new employment opportunities. All are areas and subjects which currently are being researched at State Agricultural Experiment Stations and Forestry Schools through use of Federal-grant, state, and private funds.

The Cooperative State Research Service is the agency of the U. S. Department of Agriculture whose primary function is to administer the Acts of Congress, dating back to the Hatch Act of 1887, that authorize Federal appropriations for agricultural research to be carried on by

the State Agricultural Experiment Stations in the 50 states and Puerto Rico. The Act states, "It shall be the object and duty of the State Agricultural Experiment Stations, through the expenditure of the appropriations hereinafter authorized, to conduct original and other researches, investigations, and experiments bearing directly on and contributing to the establishment and maintenance of a permanent and effective agricultural industry of the United States, including researches basic to the problems of agriculture in its broadest aspects, and such investigations as have for their purpose the development and improvement of the rural home and rural life and the maximum contribution by agriculture to the welfare of the consumer —."

The Hatch Act payments to the states for agricultural research which are on a formula basis serve as incentives for additional non-Federal support to carry on essential research. Non-Federal monies are provided by the states as their share of the cost of agricultural research. The states also pay for closely related lines of research and the major costs of administration and general overhead expenses. As you will note, the charter is broad. Also, the McIntire-Stennis Forestry Research Act of 1963 provides for funding of forestry research at the Stations and at Forestry Schools.

The Federal-grant program funds, wholly or in part, about 6,000 projects and about 200 regional projects. States, wholly or in part in Appalachia, are responsible for about one-fifth of these projects. Not all of these projects are directly relevant to the problems of Appalachia but there may be expected to be some spin-off from a number of the projects having some relevance to Appalachia. The projects cover the wide range of subject matter areas encompassed in the Station research program.

This conference has placed considerable emphasis on the need for what some of us call a systems approach in research, that is, interdisciplinary and interinstitutional research. This is not new for Station research. Many of the Station projects are interdisciplinary in character. All of the regional projects are interinstitutional and many are interdisciplinary. The real critical issue in a systems approach to total problem solving is that of conceptualizing the problem and then of developing a determinate project, that is, one with a beginning and an ending.

All of us here are concerned with the kind of communities we want tomorrow and the kind of communities we may expect if things go on as they are at the present time. We do need to be concerned as to the

kinds of alternatives we have to offer through research information and through education and training that will help people to live a satisfying life, that will help close the gap between those of us, for example, who are sitting in this room and those who live up in the hollows.

Related to the kinds of communities we want is the problem of reversing the trend, which has existed for years, of working largely for technology; now we must see how can we manipulate technology to work for us — to improve our environment, and to improve our educational and training skills. We need depth in our research and depth in our imagination. We need to be futuristic in our thinking. We need to be so because by the time the children who are now in kindergarten are 35 years old, there will be another 100 million people in the United States. The total population by then could comprise a city which might extend from Norfolk, Virginia, west across the U. S. into the Pacific beyond San Francisco. This concept has terrific implications for us in terms of the kind of society that we can expect in thirty years, by the year 2000. We must continue to address ourselves to the kinds of problems that are going to be generated out of this population explosion, the changing distribution of our population with its changing desires, and wants and needs. In this sense, then, considering Appalachia and its problems provides us an excellent model with which to study some of these very pressing challenges not only of the present but of the future as well.

F. The Role of the Department of Housing and Urban Development in Appalachia. (T. F. Rogers, Office of Urban Technology and Research HUD).

The Department of Housing and Urban Development, in the broadest sense, is concerned with the following four areas: (1) housing; (2) community development (by this we mean the renewal of our present communities and the building of new areas, even perhaps new cities); (3) public facilities and services (by this we mean water, sewer, waste disposal, transportation, etc.); and (4) more efficient and effective local government.

The Department of Housing and Urban Development, now nearly three years old, originally was made up of certain predecessor agencies. It is now close to becoming, with new programs, a new headquarters building, certain internal reorganizations, and experience, the more closely knit and broad urban-related Federal Department expected with its establishment. It carries out its work in such program areas as urban renewal, mortgage insurance, public housing, comprehensive regional planning — and the new “model city” and “fair housing” programs.

Why does the Department do research work? HUD has a very broad urban charter. We are expected to know the problems of our urban society and, working with the nation's communities, to ameliorate or solve them. We are a large and growing Department. And yet, the nation is faced with a dilemma — one that I share with this conference: over the past decade, while the Federal funds, and what they represent in goods and services that have been put into the cities, have been going up and up (Federal funds now going to the cities approximate 15 to 20 billion dollars a year) we still have poverty, we still have segregation, we still have slums -- and now we have riots.

Speaking not as an historian, nor as a politician, nor as a government administrator, but rather specifically as a scientist and an engineer, and for my professional colleagues, I must observe that we simply do not understand the problems of our urban regions in explicit quantitative terms.

And, please note, that when I speak about urban regions I include not only the large cities but also communities of the size of many of the population centers in Appalachia — as well as many thousands of other small communities all over the country.

Among all of the R & D areas that the Department is now exploring, I would judge that housing is of the most immediate importance to the concerns of the Appalachian Region. We are trying to find out why housing costs what it does, and why it takes the time it takes for construction, and what are the types most needed and desired by our country's lower-income and otherwise disadvantaged families. We now know that the cost of housing for lower-income families in our urban regions, and the time that is taken to bring this housing into being, is much greater than it otherwise would be because of institutional arrangements that have grown up over the past. I refer particularly to the way that the housing industry operates; the way that housing codes are written and interpreted; the way that zoning regulations are written and interpreted; the characteristics of certain labor practices; the ways that cities are organized, and the way that cities administer construction. We now know that all of these things are adding greatly to the cost of housing in dollars and time.

In our department, we would like the academic community to help us in our R & D activities, and also to produce professionals that could help our state and municipal agencies to do a better job; we expect to utilize industrial designers, engineers, architects, sociologists, psychologists; we expect to interest these people in working on problems

in our urban fields so that we can all do a better job. We are doing a little of that now; we are hoping to do more.

The National Academy of Science and the National Academy of Engineering have recently given HUD some advice on research strategy, and they strike two notes of importance for us. The first is that we must face the fundamental problems faced in the so-called "soft" sciences, i.e., the social sciences, the political sciences, the anthropological sciences, etc.: there are simply too few of them addressing our urban problems; they are not sufficiently disciplined, in the qualitative objective sense of the term as used by the "hard" scientists and engineers; and they are not conducting experiments of the size, detail and duration that we need to have undertaken to enable us to learn usefully of the problems of our people in the cities. This is a clear national deficiency that must be corrected. The second has to do with the universities. The universities, as we all know, are collections of individuals of extraordinary competence: they are aggregations of individual excellence. But the problems which we face in the cities now cannot be solved by individuals acting alone; rather, they must be attacked simultaneously and coherently by large groups of people from many disciplines. This the universities for the most part have not done, and are not doing today. There are exceptions to this: there are the University-associated M.I.T. Lincoln Laboratory, the Cal-Tech. Jet Propulsion Laboratory, the Johns Hopkins Applied Physics Laboratory — large interdisciplinary groups that are problem oriented — but none of these are working on urban problems. By and large, the universities are not now effectively organized and equipped to take on major problems such as those presented to you in the Appalachian Region.

In this regard, you should know that we have established an Urban Institute. This Institute does expect to have a fairly large and variegated array of disciplines. It will have physical scientists and engineers, social scientists, behavioral scientists, political scientists, economists, architects, planners and lawyers.

We all appreciate now, that urban problems are extremely complex and that they must be attacked by large professional inter-disciplinary groups.

While I cannot now anticipate the detailed conclusions of the National Academies in the studies they are performing for HUD, I could hazard a guess that they will conclude that, *at the moment*, we are not technologically limited, but that, rather, the engineers must to some extent await a much deeper penetration into urban-related research by the

political, social and behavioral scientists, and their eventual delineation of the overall characteristics of the urban "solutions" to be expected of the engineering community.

We have made a beginning in urban-related research and development in the Department of Housing and Urban Development, and we are going to expand upon it and exploit it as rapidly as we can do so with confidence.

G. Social Barriers to the Experimental Appalachian Health Program.
(Donald Madison, M.D., U. S. Public Health Service).

In the case of the Appalachian Health Program, about all the monetary resources that one would want were available. The Appalachian Regional Commission, to begin with, got together a Health Advisory Committee of recognized health experts who tried to determine what were the unique health needs of Appalachia. They decided that Appalachia's health needs, as such, were not very much different from the rest of the nation's but that health service needs were. Manpower was in extremely short supply, counties were small and they were very strong and there was extreme fragmentation of the health services that did exist. They decided that the thing to do with the very large amount of money appropriated (for a Federal health program), would be to demonstrate better economy of health manpower within the context of multi-county comprehensive health service programs which would overcome the barriers — the political barriers, jurisdictional barriers, and barriers of accessibility—to many types of services.

Unfortunately, because local option was felt to be more important than firm Federal guidelines, the Appalachian Regional Commission spent all the money without really doing very much about these problems. The counties were small and strong, the demonstration projects did not overcome this. The Health Advisory Committee said that new buildings were not nearly as important to Appalachia as improved services; the local projects chose and the Appalachian Regional Commission bought essentially buildings.

Perhaps I should elaborate a bit on what I mean by "small and strong." The counties in the Appalachian region are geographically small compared to the average of the United States. But their officials are often strong in their opinions, very independent minded and unlikely to agree that something else is more important than political boundary lines and independent taxing authorities and simple service delivery systems rather than multi-county systems.

H. *Other Considerations in the Implementation of Health Programs for Appalachia.* (Harold F. Goldsmith, Population Research Section, Mental Health Study Section, NIMH, HEW).

Your question can be considered on two levels. First, viewed in terms of immediate tasks, the question is how to construct health service areas. How do you designate a reasonable health service area for a comprehensive mental health facility given that the law requires that a facility should serve a population of between 75 and 200 thousand people? There are many different ways this could be done. The way selected depends primarily on your thinking about what kind of population you wish to serve. On the one hand, you could group counties or census tracts on the basis of social and economic integration. Such a service area would contain many different kinds of populations. On the other hand, you could construct an area that contained a single, homogeneous population. Solving this problem is relevant in every situation which involves provision of services or facilities (of any kind) to people. If we can solve this problem within cities as well as in rural areas, I think we will have made considerable progress toward the provision of adequate service programs.

The second aspect of the question relates to the optimum conditions under which long-term basic research can be undertaken, completed and communicated, and relevant action taken. Such research, if it is to be done adequately, requires time, money, continuity of staff, and autonomy. It may be that such research cannot easily be conducted by either the federal government or a state government, or even in a university as these institutions are presently structured. Indeed, it may be necessary to establish some sort of autonomous public corporation to conduct long-term research on certain specific problems. Such an organization would not be bound by the time pressures which plague governments and, unfortunately, universities as well. Such an organization should have sufficient funds to assure career-long support for individuals hired. This is necessary in order to guarantee continuity of staff.

An autonomous public corporation may be necessary because some form of bureaucratic organization is required in order to conduct large-scale research activities. It is unfortunate that many of us do not think bureaucratically, for we live in a world where bureaucracies perform an important role. Bureaucracies can be efficient — they are not always. We ought to think about making them both useful and efficient, here specifically with respect to research. Of prime concern is the recognition that there should be a division of labor among research tasks. Often we

assume that the dual job of the researcher is to discover solutions to problems and to communicate these solutions to all interested audiences. I disagree with this. The researcher should be viewed as a line person whose task is to find solutions to problems, not as staff person whose task may be to communicate effectively, to all concerned, the solutions to problems. It is unreasonable to expect a single individual to adequately perform both of these time-consuming and different tasks simultaneously. Since the value of research is based, at least in part, on subsequent application, it is important that we structure an organization to be effective not only in its production of solutions to problems but also in its communication of these solutions.

CHAPTER TEN

SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

The conference ended in General Assembly. After acknowledgments made to all who had contributed, the chairman of the Steering Committee offered the following opening remarks.

A. IMPORTANCE OF THE PROBLEM

David E. Lindstrom

We now come to the place where we find what this conference has meant, what it has accomplished, and what it tells as to the future directions we might take in our various institutions. We are all impressed that one of the major obligations facing us today, as we conclude these proceedings and return to our homes, is realistically to attack the dread disease of poverty in our land. Please note that I call it a disease.

Why do I call poverty a disease? I must do this because I cannot accept the easy definition of poverty which is based on the concept of lack of income, or income below a certain figure. Such a definition of poverty leads to the seeking of easy solutions—even more than that, such a definition of poverty violates the dignity and proud spirit of those who in their minds are making what they consider a good living out of the resources they have. A definition which defines poverty principally in economic terms can lead to a damaged spirit and a frame of mind which can result in a far wider impoverishment than that which is material alone.

The efforts of our institutions, therefore, should be guided by this concept which recognizes that poverty is an illness, a malnutrition of spiritual *and* real or material resources. Furthermore, with this recognition we should engage in working with those enduring this illness with the same spirit and dignified approach we might offer to anyone we might be addressing with suggestions and offers to assist in the improvement of their living conditions. It is clear, I hope, that by this definition, we may include those in affluent circumstances for they too deserve the same considerations I have mentioned.

The disease of poverty is difficult to define and equally, if not more difficult, to diagnose. Poverty can be seen at its best, in all its subtle forms when the head of a family, or the entire family, is forced for the

first time to take public assistance. The symptoms of the disease are similar to those one observes when old people are forced to go to the "poor house," a term used in my youth when the aged of our farming community endured this unhappy event. The symptom I am trying to describe is one of a basic mental change, probably that of frustration. It involves the giving up of hope, the death of the spirit of pride and of independence.

And out of these mental changes come new mind sets and new personal values which are diagnostic ones: escapes into drunkenness, the philosophy of "live for today with tomorrow be damned," involvement in sexual promiscuity regardless of the consequences, engagement in petty crime to find ways to feed burgeoning numbers of children, hatred for those in positions of influence, and resentment against "the ties that bind," the enforced dependent position.

All of these symptoms of the disease can lead those impoverished ones to violence, to new sets of values and goals which are at variance with those of other members of the society in which they live. And often, perhaps as bad if not worse than violence, this disease causes the impoverished ones to withdraw from society.

This, I give you then, because it is essential that we realize that this conference has addressed one of this affluent nation's most critical problems, and secondly we must realize that the problem is one in which we all are or should be involved. It is my conviction that what comes out of this conference will be of great import for guiding all who would alleviate poverty—in Appalachia and everywhere.

B. SUMMARY REPORT FROM THE INTERDISCIPLINARY GROUPS.

Wilson C. Snipes

The following comments can be divided into three major groups, first, general responses to the interdisciplinary discussions; second, summary observations on four questions raised concerning economic issues, education, welfare-housing, and health in Appalachia; third, observations related to research techniques and/or research resources and instruments. These comments involve, as one would expect, conflicting views, many points of views, various attitudes, multi-faceted questions and answers.

The participants in the interdisciplinary sessions who were critical in examining proposed questions and self-critical in examining them-

selves made the following unfavorable comments about the interdisciplinary sessions and themselves:

1. Many people present who are doing research in Appalachia poverty problems are unacquainted with the published research.
2. Discussants in the interdisciplinary sessions were in many ways unprepared to discuss the questions raised in the sessions.
3. The discussions were of questionable relevance since the discussants found themselves applying personal values to other value-oriented situations.
4. The subjects of the conference, the Appalachian poor, were not represented directly in the conference and interdisciplinary sessions.
5. The conference was composed of too many academically oriented individuals.
6. There were no representatives or spokesmen for industrial development organizations, no farm experts from the farm organizations, no local or state governmental leaders.
7. Representation from the humanistic disciplines—art, architecture, literature, sculpture, music—was slight.
8. The presence of welfare workers and their input regarding first hand experience on Appalachia, would have provided a more realistic basis for discussion.
9. Each interdisciplinary session needed at least one active and aggressive devil's advocate to challenge the stated opinions.

All this sounds pretty bad. In turn the self criticism revealed a number of favorable comments about the conference and the interdisciplinary sessions. The fact that individuals from many institutions, disciplines, and agencies met together to discuss a common concern, was in itself meaningful. Each participant learned from the structure of interaction and conversations a great deal about Appalachia, the realities of human life in that region, about other research areas, about personal and disciplinary biases and approaches. The discussions were fruitful, in that they suggested many basic issues that must be clarified and examined. Many participants were well versed, articulate, research oriented, knowledgeable. The manifest attitudes of the discussion groups and participants were generally high and serious. Discussants freely shared their attitudes, views, research findings, and experiences as they related to the subject discussions. The dialogues begun at this con-

ference between representatives of various institutions, disciplines, and agencies will become more meaningful through subsequent forms of cooperation, new research efforts, new systems and problem solving approaches to the realities of life in Appalachia.

The conference was generative and seminal, not regulative and constitutive. Here, then are some of the summary observations. The discussion groups made a number of observations related to the four questions raised. However, before considering the specific questions, three general comments should be made. (1) Poverty is a relative term that requires more careful analysis leading to the development of an index that can be conceptualized. Moreover, there is a need for the study of instruments used to measure poverty, thereby improving conceptualization of the meanings, nature, and problems of poverty. (2) The current programs related to any phase of the total program attacking poverty in Appalachia should be evaluated to determine present effectiveness to provide guidelines for future programs. Examples in health, welfare, economics, housing and education may be cited. Evaluation should be done by outside organizations uninvolved in either administering or funding the present programs. (3) What problems are created by migration patterns? Which direction should we move—continue concentrating people in urban centers or decentralize industry? The migration patterns may need to be changed or re-directed to avoid intensification of urban problems. It appears that many urban areas in Appalachia and on its fringe could be developed to absorb much of the layover.

The first question considered by the interdisciplinary groups was directed toward economic realities in Appalachia: what can be done to improve economic conditions (a) through agriculture and industrial development; (b) capital inputs; (c) changes in the welfare system; (d) changes in the tax system? Summary answers included the following:

1. Research in economics should demonstrate what industries can be attracted to Appalachia, including specifically those industries with forward and backward linkages, and should assess resources in each area. This research must involve assessments of the local sociological structures, resistance to change, attitudes, class structures, education. It should be carried out by action and basic research programs, based on sustained communication and access between groups, a coordinated and integrated program that recognizes diversity and similarity.

2. Former adjustment studies indicate potential for improvement, but what are the necessary conditions for successful adjustment? What

is the maximum number of people who can be supported in agriculture in the region? What methods of communication are effective in bringing about adjustments?

3. Researchers should develop a new level of living index. It should be based more on non-economic indicators, c. g., percentage distribution of family income on an annual basis, and a weighted composite index of the standard of living.

The second question presented to the interdisciplinary groups was directed toward the problem of education in Appalachia. What can be done to improve education and training in Appalachia: (a) adult education, (b) elementary and secondary education, (c) vocational and technical education, (d) higher education? A number of interesting comments emerged from the discussions of this question.

1. The economic problems are not nearly as important as the educational ones. What institutional arrangements are necessary to maximize the effectiveness of all facilities of education, birth to death? The suggestion was made that the close study of the Danish Folk Schools might contribute the possible answers.

2. Education in Appalachia must involve those things that are of the heart and the mind, e.g., the McGuffey reader defined these, perhaps, much more effectively than today's readers. Religion is thought to be the heart in Appalachia, education the mind.

3. Community activity centers should be established for such purposes as adult education, communication, etc.

4. There is a need for vocational education, including the instilling of pride in a trade. Local political sway should be reduced while state control should be increased. Moreover, educational programs should begin at an earlier age since deficiencies show up at approximately age three. Finally, there should be more teachers' aids in the schools, more mothers involved in education, more optimal size schools.

5. Counseling services should be improved to make young people, particularly those in families, aware of opportunities beyond the local community. Research probably should be done to establish effective guidelines. However, considerable progress can come from motivated counselors, teachers, and other persons within the local community, if adequate time and other resources are provided. Every opportunity should be provided to broaden the contacts and meaningful experiences for children in poverty families through experiences in camp programs

outside the local area, trips to urban centers, summer work experiences in industries in other communities.

In the third question interdisciplinary groups were asked: What can be done to improve housing and community services and facilities? Their answers included the following:

1. Research is needed on (a) the dynamics of values, attitudes and life styles of people in the relation to different types of housing; (b) to the relationship between housing arrangements used as a basis for community living and the effective participation in community affairs; (c) factors affecting change and personal styles and effective living in different kinds of housing.

2. A study should be made of the feasibility of establishing realistic housing standards. This study should include the public desires and needs.

3. Coding standards for housing should be enforced. What would "the poor" want in terms of housing?

4. An examination of actual living conditions of welfare recipients should be conducted to determine the impact of the present programs.

In the fourth question the participants were asked: What could be done to improve health protection and care? Several answers are significant:

1. Research is needed in evaluating the present health and nutritional status of people within Appalachia.

2. Descriptive research is needed to determine the food and dietary habits of the people within the region.

Discussion groups not only addressed themselves to the problems raised by the questions presented to the groups but also proposed instruments and techniques by which the research data may be acquired, interpreted, stored, shared, translated and measured. Perhaps the most significant contributions made by the interdisciplinary groups were made in these critical observations:

1. A small group should be established to identify research resources for the purpose of locating strategic personnel, performing a brokerage function in bringing together research needs, research manpower, and research administration to perform interdisciplinary and interinstitutional (problem solving) research. Such a mechanism should also have the capability of assisting the identified researchers, the procurement of funds, and other needed resources.

2. A recommendation should be sent to the Appalachian Commission to continue to develop the knowledge bank started by the bibliographic collection at West Virginia University. This bibliographic bank is not in a readily useable form. Methodologies must be developed for information retrievable from this bank; this information must be organized in discipline, multi-discipline, and problem focused data.

3. A study should be made of the feasibility of establishing a public service body (a) to identify unmet community needs in the public sector, (b) to develop the jobs necessary to alleviate these public needs, and (c) to train local persons who are unemployed or underemployed to fill these jobs. Although the immediate recommendation involves an Appalachian Public Service Agency, the feasibility of a national body should be considered.

4. Mechanisms should be established to link researchers to practitioners and vice versa, both for the dissemination of research findings and for the generation of new researchable problems the researchers should examine. "We need research-action bridge people."

5. It is recommended that efforts be directed to dividing the region into smaller problem units and that interinstitutional (university-government-private) arrangements be developed to study problems and recommend viable alternate solutions to these problems.

6. The poor must become involved in the planning and conduct of actual programs and must learn to utilize effectively the resources administered by various agencies. Research may be required; an action program is imperative.

7. Studies are needed to establish (a) models for the identification of community characteristics and power structure; (b) to optimize the effectiveness of community organizations and activities in terms of human resources as well as in terms of physical and economic development.

8. Techniques should be developed to bridge the gap between poor people and the power structure.

C. SUMMARY REPORT FROM THE INTERINSTITUTIONAL GROUPS.

Robert Coe

First of all, it should be stated that much of what this report contains is not unlike many things to which the previous speaker has already

referred. It is evident that all groups are talking about a common problem and it is only natural that there will be some common remarks.

The groups were delighted to learn that whatever interinstitutional arrangements to which our participants had been exposed they were happy with these arrangements and all felt that they were very rewarding. Group members felt that interinstitutional cooperation had achieved things which could not have been achieved without this cooperation. On the other hand, all participants agreed that there was not enough of this kind of cooperation going on, and that everything possible should be done to encourage interinstitutional cooperation where it is needed. This should be done because of the rewards that might come from such an effort, but one should not simply go out and enlist institutional cooperation just because that seems to be the "Name of the game."

It is possible to cite some examples of where the principle of interinstitutional cooperation can be seen as a feasible and practical operation. Many local institutions are small, perhaps under-financed and do not have the specialized talents that are needed to approach the problems on which they are working. Consequently, they can look to the larger institutions for sophisticated research designs and for specialized talents. Local institutions can look to local industry for computer resources. With this kind of cooperation small local institutions can achieve things that they could otherwise not achieve, at least over the short turn. On the other hand, the large institutions with their specialized talent, their money, their research designs, often find that the local institutions (the community colleges, the small businesses, the social organizations) are in the best position to implement the research designs that they (for example, Cornell University, Wisconsin University, Pennsylvania State University) are initiating. Consequently, there is a great deal to be gained in interinstitutional cooperation from the standpoint of all participating parties.

The interinstitutional groups find, however, that the concept of interinstitutional cooperation is perhaps not broad enough: It is felt that local industries are not brought into the conversation enough, and a lot of small institutions are overlooked. It is recommended, therefore, that people, in thinking of working with local institutions, broaden their horizon to include participation of business organizations, social organizations, and educational organizations that perhaps have not heretofore been worked with.

Furthermore, all recognize that people today are working in what is hoped to be a changing environment. One of the common recommendations from our group was that there is a need for people who are able to act as "brokers." These people might go into the local community and discover those local leaders who are able to adjust to change, who are able to work with change, who are able to lead others through the frustrations of change.

Then these "change brokers," in turn, need training. Once we have identified the local leaders, probably with the cooperation of local institutions, to work with the larger institutions, the next step is to train these local leaders. Large institutions may need to change their traditional approaches towards education, so that they might set up programs that are workable and useful in terms of training these local leaders, thereby giving them the needed training that they must have in order that they can profitably use their innate ability of being able to live and work with change. They then can go back to their communities to implement the programs that have been designed at the large institutions.

Consequently, it is vital that one look at a changing situation in which it must be expected that not only the people change; also there must and will be change in approaches to educating these people. There were many examples given of this in the group deliberations such as the Upward Bound programs and other High Risk-High Gain programs. It was noted also that the local leaders, once again, are in a position to implement many programs that perhaps would not be as well implemented if their cooperation and employment were not obtained. From these points it follows, of course, that cooperation must be enlarged to involve the large federal agencies, and large universities, for their support must be obtained also in working with these local institutions to help identify and train local leaders.

Furthermore, in interinstitutional cooperation, it is apparent that the arrangement facilitates the identification and allocation of scarce resources. One scarce resource has already been mentioned, namely, those local people who must be identified and equipped to work with change. Help by those institutions who are concerned with and who understand social change and who are dedicated to social action is needed to assist in identifying the local people. We feel that the supply of such people represents a scarce resource and interinstitutional arrangements are needed whereby those institutions that are willing to adapt their

traditional structure to the immediate needs of Appalachia may be identified.

The group feels, in the second place, that there is a definite need to enlarge upon the existing data banks such that they will provide those institutions working in the area, not only with the information that has already been accumulated, but also provide this information in an objective manner so that the conclusions may be interpreted by the user, free from the influence of the manner in which the information is presented. There are many problems, of course, in the area of data banks. The data bank is a costly operation. There is the problem of getting all the information in meaningful terms into common denominators. For example, a rather simple term tended to cause some stumbling in one of our sessions: someone mentioned that absenteeism was good in a certain situation. But what is meant by *good*: does it mean so much in terms of a percentage turnover; or a numerical turnover? What might be good in one situation is not good in another situation. And so the data bank would have to attempt to bring about the dissemination of these data in meaningful terms and attempt to eliminate a duplication of terms.

The group feels, in the third place, that interinstitutional cooperation would be very helpful in finding sources of funds. Everyone seems to be concerned about where to get the money. "I approached certain people and I was turned down." "I don't like to say this, but what kind of gimmick must you use: what kind of projects are they falling for?" And even though men in every institution we talked with seem to have someone within the institution who has this duty assigned to them, we feel that there is a definite need for further interinstitutional cooperation so as to let people know where the funds are, the ways to get these funds, and how one can best approach the problem of budgets.

Finally, one thing that was brought out over and over again regarding interinstitutional arrangements is that persons and institutions cannot be shy about entering into them. Someone from the University of Tennessee mentioned the fact that his people were working in Kentucky. "How did that happen?" we asked. The answer was, "they just went there." In other words, the participants must have a sense of boldness to develop interinstitutional liaisons. Someone from Pennsylvania State mentioned that everyone told them that they could not get the cooperation of six different states — "you just cannot do it" — but they went out and got the cooperation. In other words, it seems that many times it is necessary to break with what some people believe is the traditional approach, and have a sense of boldness about what must be

done, especially in terms of gaining interinstitutional arrangements when trying to combine the efforts of political organizations, educational organizations, and business organizations.

D. SUMMARY REPORT FROM THE UNIDISCIPLINARY GROUPS.

George E. Russell

As has already been stated, the participants in these groups were not unidisciplinary. They represented several professions in many fields of work. The following will be a summary of the deliberations on the topics of special interest which these multi-disciplined persons considered:

On the first problem, how to improve health and welfare, some very definite recommendations were made — to develop a sophisticated regional TV network for health education which would utilize unsophisticated programs. It was further recommended that health facilities be reorganized to contain primary medical centers with satellite hospitals and smaller centers supported by rapid transit facilities, such as helicopters and special rail cars. Recommendations were made for development of more counseling facilities for family planning, career development, housing, family financial management and nutrition. This group also offered two other proposals: (1) the development of non-professional local people who would be spokesmen for the needs of people and thus represent the indigenous in community decision making, and (2) the creation of a corps of physician assistants to work directly with the physicians to improve the efficiency of these small group medical practices.

Moving to ideas developed in the area of welfare, it was proposed that efforts be made to (1) Conduct research on the effect and consequences on family attitudes from being on long term public assistance programs. (2) Improve standardization of programs around the country. (3) Develop better public relations and information to interpret the present welfare situation to the public. (4) Increase the numbers of studies which provide legislative bodies with factual information regarding the proposed changes in welfare which provide them, for example, information on the relative merits of a guaranteed annual income.

The next special interest group discussed improving industry in Appalachia; they had four recommendations: (1) Seek to make local use of local capital; give people an opportunity to invest in their region and their future. (2) Redefine work to counteract the middle class

morality that not to work is evil. (3) Consider subsidizing the people who migrate to job centers. The size of the subsidy should consider the size of the net cost to replace the abandoned home and to allow adequate time to adjust to the new location, get training and find a job. (4) Encourage mining companies to allow people to buy the homes in which they live. This leads to improvement in the appearance of the homes, changing the attitudes of the inhabitants and enlarging markets for home improvement and home maintenance. (5) Given that availability of labor is a major resource to offer industry, firms locating in these regions should receive a tax credit based on labor use and not on capital investment.

The third problem-oriented group tackled the problem of means of improving agriculture and agricultural practice in the Appalachian Region. Their recommendations were: (1) To determine the economic structure that maximizes returns in a given viable area in terms of improved living (in other words, resource allocation to farming, commercial business, processing facilities, manufacturing and so on). (2) A feasibility study of low income farms in a given viable area on which an advisory management input is provided. The purpose of the study would be to measure the contribution of management and to discover factors or attributes of low income farms that deter adoption of improved methods. (3) What is the optimum number of farms for given viable areas and what institutional arrangements can be designed to facilitate the development of optimum size farms. (4) Has the changing structure of the agricultural industry been compatible with that of the banking industry—with the merger of small rural banks and city banks? (5) Has loss of comparative advantage in the Appalachian Region resulted from failure to develop mechanization adapted to this terrain or can labor saving equipment be designed for relatively steep land?

The next group looked at the problems in education in Appalachia. They had the following proposals on research needed: How can financial resources be more utilized? How can research needs be better communicated and and how can research be utilized in the region? How can creativity in teaching and learning be stimulated? How can community attitudes and beliefs about education be influenced? How can the relationships between attitudes and social change in the region be determined?

One of the concrete suggestions that came out of the discussion was that concerning the establishment of a model center where education

innovations and concepts might be tested, and where an effort could be made to identify strategies that could be effective in working with the power structure in the Appalachian Region.

The last group to report was one on housing and regional planning. They had four concrete proposals. (1) Interinstitutional work on short course training programs in regional planning. (2) More degree programs in planning. (In other words, more people are needed who are trained in this area of planning.) (3) Interinstitutional teams for developing plans for local development districts in Appalachia: the term approach to this type of development. (4) Parallel studies of poor peoples' reactions to the various types of housing constructed in the region.

E. SUMMARY REPORT FROM THE "REACTORS."

Donald Fessler

Certain individuals were chosen to be "reactors" to the conference because they were not themselves research scientists, and because by their professional and urban activities they had demonstrated a high degree of concern for the problems of the area. This group offers the following observations and comments. In the first place, all were impressed with the number of institutions of higher education in the area that are carrying on research, and with the variety and quantity of the research itself. It is felt that what research is being done may fall far short of that needed and this will lead to a consequent inability to develop an overall point of view. Little evidence was given that any of the disciplines represented were sufficiently problem oriented to have taken the time and effort to translate past research that was still valid and relevant to the problem, into a form that could be utilized by the people to resolve the problem. In fact, there was the suspicion that in some cases research was being undertaken primarily to avoid having to take action.

The recommendations are submitted: (1) Since it was fairly evident that there were no overwhelmingly successful cases of interdisciplinary research, let the researchers make one of their first orders of business that of developing a useable pattern of interdisciplinary and inter-institutional research calling in whatever experts that may be available to help achieve an effective model. (2) Let the universities involved assume that their responsibility does not end with being a research tool, and that they should be the total change agent applying resources to

the solution of the problems that have been researched. (3) In future research efforts let there be greater community involvement in identifying the problems and in carrying them out so that there will be the necessary motivation for the people to implement the recommended solutions. We believe that in many cases local people can be used in sub-professional roles to carry out the research designed and in doing so be in a position to better implement the findings by helping to bring about the needed change in community attitudes and practices. Finally, (4) wherever possible, when local people are involved, let them receive a direct benefit from such participation, such as acquiring the competency to cope with other problems without outside help should such problems occur in the future.

F. RESOLUTIONS FROM THE FLOOR.

Resolution I

Whereas the conference has demonstrated the feasibility, desirability, and necessity of disciplinary and interdisciplinary collaboration on the institutional and interinstitutional level in the Appalachian Region;

Be it resolved that

1. A post conference meeting be authorized and urged by this group to which there would be invited one representative of every institution and agency — federal, regional, and state — represented at this conference;

2. That such a representative be one, preferably, who has been in attendance at this conference;

3. That such representation be officially approved by each respective institution and/or agency represented here;

4. That this conference be held at the Virginia Polytechnic Institute in the fall, 1968;

5. And that in preparation for this post-conference meeting, each of the universities and colleges involved set up its own ad hoc committee, made up of one representative from each college or school in the institution — (such as, architecture, agriculture, economics, home economics, education, political science, sociology and psychology, etc.) and that Federal, Regional, and State agencies, likewise, set up a subcommittee structure so as to make a similar organization in their respective subsidiary departments or divisions.

If approved, this resolution should be submitted by mail through the sponsoring committee of the Conference on Research in Poverty and Development at VPI to the high ranking official at each institution, agency, or organization, with copies going to representatives having attended this conference.

Amendment to Resolution I:

That there be added to the proposed forthcoming meeting an appropriate representation from the Appalachian Region comprised of persons who are members of the local communities, and that the means for determining who these representatives will be shall be achieved through guidance from members of the present "reactor" group.

The resolution and the amendment both were seconded and passed unanimously.

Resolution II

Be it resolved that to provide a geographical and functional focus for research activities, the conference membership or any unit established by the membership, use the thirteen state political boundaries established by the Appalachian Regional Commission as the basis for investigative activities. As this Commission originated in a conference of Appalachian governors, and better represents the states than any multi-state comprehensive program or activity, a regional research focus based on this agreed upon set of geographical boundaries will provide one stable basis of operation essential to concerted research activity.

This resolution was seconded and passed unanimously.

G. CONCLUSIONS.

The 1st VPI Appalachian Regional Conference met and closed having produced a wide assortment of ideas for research and action. There was a clear mandate expressed in the conference, as shown in these proceedings, that *inter-disciplinary* and *interinstitutional* cooperation is desirable and needed. Many hesitations and cautions were uttered to cause the impulsive to beware of precipitous response. The delicacies of effecting the vehicles which can bring about practical interinstitutional cooperation have been extremely well emphasized.

The conference adjourned on a note of desire for continuity. Its resolutions were to return home, generate home interest, and to reconvene. One can only assume, therefore, that the signs at the end of three arduous days foretold of progress made in attacking Research on Poverty and Development in Appalachia.

CHAPTER ELEVEN

RESOURCES AND HOW TO USE THEM

This chapter provides the reader with (A) directions as to how to use the Appalachian Computer System, (B) a list of data available through the Quick Query System, (C) a list of publications available from the Appalachian Regional Commission, 1666 Connecticut Avenue, N. W., Washington, D. C. 20235; and a list of materials displayed at the Conference on Research in Poverty and Development held at Virginia Polytechnic Institute, Blacksburg, Va. 24061, July 17-20, 1968.

A

APPALACHIAN COMPUTER DATA SYSTEM

In order to organize the basic information necessary for economic and social analyses of the Region and to provide for its efficient and rapid use, the Regional Commission has developed an Appalachian Computer Data System.

This system contains a basic file of some 10 million items of information, dealing primarily with population, employment, income, the labor force, education and housing within the Appalachian Region.

The Appalachian Data System has been developed in cooperation with the Economic Development Administration. In the past two years EDA has built a Comprehensive Information System and Data Base and devised a unique "Quick Query" computer program, making it possible to obtain printouts of national economic and social data in various combinations or progressions and by state, county, or city.

Through the programming carried out for the Appalachian system, it is possible to query EDA's data base to obtain information about local development districts (groups of counties). In addition, new information about the Region is being fed into the Appalachian portion of the "Quick Query" system as it becomes available to the Commission's Research Department. (See attached "List of Data Available Through Quick Query Computer System.") A continuing effort will be made to update information and to keep it relevant to the needs of those using the system.

USES OF SYSTEM

The major objective of this system is to provide relevant data to the Commission, and through the Commission to the Appalachian States and their cooperating development districts, universities, research institutions and others concerned with Appalachian development. It will be used primarily, therefore, to serve planning, development and research agencies and groups in the Region.

With these data these groups are able to describe and explain the basic factors affecting regional economic health and growth. They can: (1) identify and analyze the factors affecting economic growth and decay in the region, subregions, local development districts, counties or Standard Metropolitan Statistical Areas (SMSA's); (2) isolate and quantify socio-economic variables that explain regional and sub-regional variations in income, employment and development opportunities; (3) examine in detail the demand and price structure for basic manufacturing and service industries most likely to support growth; (4) examine the supply and price structure of basic land, labor and capital resources most likely to limit development; and (5) assemble profiles of the relevant data needed to perform socio-economic analyses of communities and regions.

After measuring these growth factors, an economist or planner can then develop an understanding of how economic structures influence economic development. He can measure the structural interactions within and between economic areas showing the capital base and the use of capital, or analyze income flows by new enterprises. He can determine the relationships of local economic activity to the broader regional and national economy. Or he can develop criteria for use in delineating viable economic areas and from this information develop programs to promote economic development.

As a last step planners and decision-makers can then analyze the impact of existing public and private programs upon area development, and propose feasible federal, state, regional and local programs, both public and private, on area development and area income distribution; appraising community objectives related to development and the ways existing economic, social and political institutions affect economic growth and income levels of people; and determining feasible program alternatives for effecting changes.

USING THE SYSTEM

An electronic storage and retrieval system makes it possible to obtain this information rapidly in different combinations for these varying

analytical purposes. It does not add to the store of information; it simply uses the information and speeds its use.

A person wishing to obtain data should contact the office of the State Representative to the Appalachian Regional Commission in the state in which he resides or works, or should write to the Director, Technical Information Services, Appalachian Regional Commission, 1666 Connecticut Avenue, N. W., Washington, D. C. 20236.

Either one of the two forms must be filled out: Quick Query Form 1 (QQF1) and/or Quick Query Form 2 (QQF2). Form 1 is for simple requests of data from EDA's base in which only a printout of information in its existing form is required. Form 1 and 2 must be used in combination for more complex requests, where calculations are involved, for requests of new information programmed for the Appalachian system, or for new combinations of items in the data base.

By filling out these forms in consultation with a special "Quick Query Dictionary," data from various files may be requested (see "List of Data"). It can be ranked or sorted from low to high (or *vice versa*) in alphabetical order, or by year. It may be requested by any Appalachian portion of a state, by districts, counties or cities; or different types of data may be requested by a specific state, county or city. Or only that data the user wants to see may be selected from various files of information.

An infinite number of combinations are possible. For example, the median family income of people living within the 28 Central Appalachian counties may be requested; or only those counties with a 1960 median family income of less than \$3,000; or only those Central Appalachian counties, also located in Demonstration Health Areas (funded under Section 202 of the Appalachian Regional Development Act) with a 1960 median family income of less than \$3,000.

The same principle applies to any data programmed into the system using the geographical combinations of the Region, Appalachian portions of states, local development districts or cities. If the data also appears in the EDA data base, a comparison may be made with national statistics.

In addition, information about the projects funded under Section 214 (Supplementary Grant-in-Aid Program) of the Appalachian Regional Development Act is being programmed into the computer. This information, contained in a separate file, may be obtained by state or county, but will not appear on the same printout with the above data.

In terms of physical hardware the Appalachian Data System makes use of a UNIVAC 1108 computer located at the National Bureau of Standards in Gaithersburg, Maryland, and a 1004 remote terminal unit at EDA's Page Building offices in Washington, D. C.

DATA IN PUBLISHED FORM

Much of the data being programmed into the Appalachian Data System may be obtained in published form. The *Appalachian Data Book* contains the basic information, and new statistics are being printed as they become available in the Commission's monthly journal APPALACHIA. As research, initiated under the Appalachian Regional Development Program, is completed, it will be printed in the Appalachian Research Report series. In some cases Statistical Appendices to these reports are also being produced.

Following is a list of the publications of the Commission. (page 214).

B

LIST OF DATA AVAILABLE THROUGH QUICK QUERY COMPUTER SYSTEM*

Available through the Quick Query System now are the following types of data:

1. All *county* information found in the 1952, 1962, and 1967 *County and City Data Book*.
2. Extracts from the 1960 *Census of Population*, Series C for *counties*:

GENERAL POPULATION DATA

Total Females 14 Years of Age and Over
Total Married — Spouse Present Females
Total Married — Spouse Present Females with Children under Six Years of Age
Total Males 18 to 24 Years of Age
Total Males 65 Years of Age or Over
Total White Males by Age Group
Total White Females by Age Group

*See next two pages for sample forms.

Total Non-White Males by Age Group
Total Females 15 to 44 years of Age
Total Children Born to Every Married Female — 15 to 44 Years
of Age
Total Persons 5 to 34 Years of Age — By Age Group
Civilian Males 14 Years of Age or Over by Military Service

LABOR FORCE CHARACTERISTICS

Total in Labor Force
Total Not in Labor Force including Persons Under 14 Years of Age
Females in Labor Force by Marital Status
Males in Labor Force by Age
Civilians in Labor Force
Total Employed by Manufacturing or White Collar Occupation
Total Workers
Total Working Outside County of Residence
Total Workers Using Public Transportation
Total Work in 1959
Total Work 50 to 52 Weeks in 1959
Females 14 Years of Age or Over in Labor Force
Total 14 Years of Age or Over by Employment Status and Selected
Characteristics, Color and Sex
White Married Spouse Present Females
White Other Females
Total 14 Years of Age or Over by Employment Status and Selected
Characteristics, Color and Sex
Total 14 Years of Age or Over Employed in Non-Agriculture In-
dustries by Class of Worker
Total 14 Years of Age or Over Employed by Agriculture by Class
of Worker
Total Employed Persons 14 Years of Age or Over by Occupation,
Color and Sex
Total Experienced Unemployed Persons 14 Years of Age or Over by
Occupational Group, Color and Sex
Total Employed Persons 14 Years of Age and Over by Industry
Group, Color and Sex
Total Persons 14 Years of Age or Over Working During Census Week
(including Armed Forces at Work) by Place of Work and Color
Total Persons 14 Years of Age or Over Working During Census
Week (including Armed Forces at Work) by Means of Transportation
to Work

QUICK QUERY SELECTION AND DISPLAY

U.S. DEPARTMENT OF COMMERCE
ECONOMIC DEVELOPMENT ADMINISTRATION
OFFICE OF PLANNING SUPPORT

Q Q F 1

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80
IDENTIFICATION	I	REQUESTOR					ORGANIZATION					LOCATION					DATE					ENTITY TO BE ANALYZED					SEQUENCE NUMBER																																																					
REPORT HEADING	H																																																																															
	H																																																																															
	H																																																																															
ATTRIBUTES TO BE DISPLAYED	D																																																																															
	D																																																																															
	D																																																																															
ORGANIZATION RULES FOR DISPLAYING ATTRIBUTES	S	H/L P					H/L P					H/L P					H/L P																																																															
	S																																																																															
		L FOR LAST OF REPORT SPECIFICATIONS																																																																														
SELECTION CRITERIA	C	OR	AND	ATTRIBUTE										CONSTANT	+/-	CONSTANT	"/"	ATTRIBUTE OR ALPHANUMERIC DATA																																																														
	C																																																																															
	C																																																																															
	C																																																																															
	C																																																																															
	C																																																																															
	C																																																																															
NOTES:	T FOR TERMINAL CARD																																																																															

H/L: H requests data for attribute to be ordered higher first, and L requests lowest first.
P : P requests the start of new page whenever value of attribute changes.
** : Comparison operators are: GE (greater than or equal), GR (greater than), EQ (equal),
NE (not equal), LS (less than), LE (less than or equal), and IS (alphabetic equal).
+/-: + (add) and - (subtract).
*/: * (multiply) and / (divide).

Symbol standardization: Ø for Zero
O for letter O
Z for letter Z
I for letter l
l for number 1
Page ___ of ___ pages

210

210

QUICK QUERY

U.S. DEPARTMENT OF COMMERCE
ECONOMIC DEVELOPMENT ADMINISTRATION
OFFICE OF PLANNING SUPPORT

Q Q F 2

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80

SEQUENCE NUMBER

FOR START DEFINITION ATTRIBUTES

REPORT SPECIFICATIONS FOR DEFINITIONAL ATTRIBUTES TO BE DISPLAYED

NAME

N

COLUMN HEADING

H

H

H

DATA FORM

F

SPACING

W

COLUMN WIDTH NO SPACE COLUMN WIDTH NO SPACE COLUMN WIDTH NO SPACE COLUMN WIDTH NO SPACE

5 12 19 26 33 40 47 54 61 68

FOR END OF REPORT SPECIFICATIONS

DEFINITIONS

A C or S T 3 ATTRIBUTE or ALPHANUMERIC DATA

16 18 CONSTANT or funct ATTRIBUTE or ALPHANUMERIC DATA 45 47 CONSTANT or funct ATTRIBUTE or ALPHANUMERIC DATA

NOTES: Only alphanumeric data are required with synonym type (S) of Attribute Definition
Permissible functions (funct) are log (L), antilog (A), sum (S)

USCOMM-DC 44333-P67

211

Total Employed Persons 14 Years of Age or Over by Occupation Group and Sex

PERSONAL AND FAMILY INCOME

- Number of Families by Income Group
- Total Families and Unrelated Individuals 14 Years of Age or Over by 1959 Income Group
- 1959 Income by Color
- 1959 Income of Persons 14 Years of Age or Over by Color and Sex
- Total 14 Years of Age or Over in the Experienced Civilian Labor Force by 1959 Earnings, Occupation and Sex
- 1959 General Income Statistics

EDUCATION

- Total Enrolled in School 5 to 34 Years of Age by Age Group
- Total White Enrolled in School by Grade and Type of School
- Total Non-White Enrolled in School by Grade and Type of School
- Persons 5 to 34 Years of Age Enrolled in Elementary School or Private School
- Persons 14 to 17 Years of Age — Total and Those Enrolled in School
- Persons 25 Years of Age and Over — Total with No Years of School Completed
- Total Persons Completing Elementary Grades by Grade Grouping
- Total Persons Completing High School Grades by Grade Grouping
- Total Enrolled in School by Grade and Type of School
- Total Persons 25 Years of Age or Over by Sex, Race and Number of Years of School Completed
- Total Persons Completing College Grades by Grade Grouping

FAMILY AND HOUSEHOLD POPULATION

- Married Couples
- Families
- Total White
- Total Non-White
- White Married Couples
- White Families
- Non-White Married Couples
- Non-White Families
- Total White Females 35 to 44 Years of Age
- Total White Ever Married Females 35 to 44 Years of Age
- Total Children Ever Born to White Ever Married Females 35 to 44 Years of Age

Total Non-White Females 15 to 24 Years of Age
 Total Non-White Ever Married Females 15 to 24 Years of Age
 Total Children Ever Born to Non-White Ever Married Females
 15 to 24 Years of Age
 Total Non-White Females 25 to 34 Years of Age
 Total Non-White Ever Married Females 25 to 34 Years of Age
 Total Non-White Females 25 to 34 Years of Age
 Total Non-White Females 35 to 44 Years of Age
 Total Non-White Ever Married Females 35 to 44 Years of Age
 Total Children Ever Born to Non-White Ever Married Females 35
 to 44 Years of Age
 Married Couples with Own Household and without Own Household
 Families Total and Total with Children under 6 Years of Age
 Total Whites 5 Years of Age or Over by 1955 Residence
 Total Non-White 5 Years of Age or Over by 1955 Residence
 Total by Year Moved into Present House

ORIGIN

Total Native Born
 Total Foreign Born
 Total Native Population by State of Birth
 Total White Native Born of Native Parents
 Total White Native Born of Foreign or Mixed Parents
 Total White Foreign Born
 Total Non-White Native Born of Native Parents
 Total Non-White Native Born of Mixed Parents
 Total Non-White Foreign Born
 Total White Native Born by State of Birth
 Total Foreign Stock by Country of Origin
 Total Foreign Born by Mother Tongue

3. F. W. Dodge Company Construction Statistics for *counties* 1963
 to present by 31 industrial classifications, non-building structures (dams,
 bridges, etc.), 65 types of nonresidential structures (stores, schools,
 parking garages etc.), and 11 types of residential structures. These data
 show the number of projects awarded, area in square feet, value in
 dollars, and, for residential structures, the number of dwelling units.
Note: F. W. Dodge data is obtained under contract and is not to be
 published in any form for county units. Totals for a subregion or for
 the Appalachian portion of a state may be published, however.

4. Extracts from the 1949, 1954, 1959, and 1964 *Census of Agriculture for counties*.

5. Projections of employment, occupations, and population for *counties* made by Dr. Curtis Harris of the University of Maryland.

6. Limited items from the 1962 *County and City Data Book* for cities, SMSA's, and urban areas.

Slated for future inclusion in the Quick Query system for dates ranging from six month to two years from now are:

1. 1964, 1965, and 1966 *County Business Patterns*.

2. Personal income estimates for 1929, 1940, 1950, 1959, 1962, and 1966 prepared by the Office of Business Economics, Department of Commerce.

3. Bureau of Employment Security labor force data 1962-1965 for all EDA classified areas (for *Labor Market Areas* only).

4. Equal Employment Opportunity Commission data on skill level, minority group, sex, firm size, etc.

C

PUBLICATIONS

The following publications may be obtained by writing to the Appalachian Regional Commission, 1666 Connecticut Avenue, Washington, D. C. 20235. Prices are as listed.

THE APPALACHIAN REGIONAL COMMISSION CODE BOOK \$5.00

This book is a codification of current Appalachian Regional Commission policy divided into two major parts: Part A covers the Commission's purpose, composition, staff structure, and general procedures. Part B covers Appalachian Regional Program planning, research and other policies and procedures generally applicable to the entire program.

APPALACHIAN DATA BOOK \$5.00

A compilation of statistical data for the Appalachian Region, Appalachian States, counties and subregions prepared in a looseleaf format. Included is a bibliography that lists publications containing significant statistics on population, employment, and labor force, health and education, construction and other areas of information pertinent to regional analysis and planning.

THE APPALACHIAN REGION: A STATISTICAL APPENDIX OF COMPARATIVE SOCIOECONOMIC INDICATORS \$2.50

The purpose of this compilation of data is to compare socioeconomic conditions and trends in Appalachia, both within the Region and with conditions and trends in the nation. The geographic units compared are: the United States, each of the 13 Appalachian States, and the Appalachian portion of each state.

STATE AND REGIONAL DEVELOPMENT PLANS IN APPALACHIA 1968 \$2.50

A summary of Appalachian State Plans as of Fiscal Year 1968.

APPALACHIAN RESEARCH REPORT NO. 1 \$2.50

Evaluation of Timber Development Organizations

Prepared for the Appalachian Regional Commission by McDonald Associates, Inc., Washington, D. C. in 1966. This report investigates the ownership, condition, and use of timber within Appalachia.

APPALACHIAN RESEARCH REPORT NO. 2 \$2.50

Recreation as an Industry

A report prepared for the Appalachian Regional Commission by Robert R. Nathan Associates, Inc., and Resource Planning Associates of Washington, D. C. in 1966. The purpose of this study is to determine the role which recreation as an industry can play in the economic development of an area: the creation of jobs, the generation of incomes, the stimulation of public and private investment and the attitudes, institutions, and facilities that foster economic growth. The study consisted of a search of available literature, on-site observation and analysis of nine specific recreation complexes, and statistical analysis incorporating the data of input-output tables and available national and regional accounts.

APPALACHIAN RESEARCH REPORT NO. 3 \$2.50

Guidelines for an Appalachian Airport System

This report contains the results of a study conducted for the Appalachian Regional Commission by Management and Economics Research, Inc. Palo Alto, California, 1967. The objectives of the study were to establish guidelines for the use of the Appalachian Regional Commission in recommending the location and financing of airport projects within the Region. Both air carrier (commercial service) airports and general aviation airports are treated in the evaluative guidelines and comprehensive airport plan.

APPALACHIAN RESEARCH REPORT NO. 4 \$2.50

Industrial Location Research Studies: Summary and Recommendations

This report summarizes the 25 industries discussed in detail in the Location Research Study Reports Nos. 1-8; 9-16; and 17-25. This report is an account of how and why they were selected, a summary and synthesis of major findings and conclusions and a series of recommendations of how to make Appalachia more attractive to these industries.

APPALACHIAN RESEARCH REPORTS NOS. 5-6-7

Industrial Location Research Studies: Reports 1-8; 9-16; and 17-25

Prepared for the Appalachian Regional Commission by the Fantus Company, Inc., of New York City, these reports convey a systematic rationale for evaluating the location of selected industries. The objective of this research was to identify, examine and evaluate all significant elements of industrial location as they relate directly or indirectly to public investment policies and activities that may be considered as economic growth stimulants for the Appalachian Region.

APPALACHIAN RESEARCH REPORT NO. 5 \$2.50

Industrial Location Research Studies: Reports 1-8

- No. 1 — The Paper and Allied Products Industry
- No. 2 — The Textile Mill Products Industry
- No. 3 — The Apparel Industry
- No. 4 — The Printing and Allied Industries
- No. 5 — The Electrical Component Parts Industry
- No. 6 — The Textile Machinery/Pumps & Valves Industry
- No. 7 — The Office Machinery Industry
- No. 8 — The Motor Vehicle Parts Industry

APPALACHIAN RESEARCH REPORT NO. 6 \$2.50

Industrial Location Research Studies: Reports 9-16

- No. 9 — The Chlor-Alkali Industry
- No. 10 — Materials Handling Equipment
- No. 11 — The Mobile Home and Special Purpose Vehicle Industries
- No. 12 — The Instruments and Controls Industry
- No. 13 — The Noncellulosic Synthetic Fiber Industry
- No. 14 — The Metal Stampings Industry
- No. 15 — The Aircraft and Aerospace Parts Industry
- No. 16 — The Primary Aluminum Industry

APPALACHIAN RESEARCH REPORT NO. 7 \$2.50

Industrial Location Research Studies: Reports 17-25

- No. 17 — The Nonferrous Castings Industry

- No. 18 — The Malleable and Ductile Iron Castings and Steel Forgings Industry
- No. 19 — The Foamed Plastic Products Industry
- No. 20 — The Rolling, Drawing, and Extruding of Nonferrous Metals Industry
- No. 21 — Meat and Poultry Processing, Dried and Frozen Product Industry
- No. 22 — The Plastic and Powdered Metal Products Industry
- No. 23 — The Refractory Metals Industry

APPALACHIAN RESEARCH REPORT NO. 8 \$2.50
Preliminary Analysis for Development of Central Appalachia

This preliminary report is an attempt to measure in general terms both the problems and potentials of Central Appalachia, an area which comprises 60 counties in the states of Kentucky, Tennessee, Virginia and West Virginia.

APPALACHIAN RESEARCH REPORT NO. 10 \$2.50
Report on the Status of Secondary Vocational Education in Appalachia

The purposes of this study are (a) to provide a general description of the vocational education program within the secondary schools of Appalachia, and (b) to indicate where the vocational education program may be strengthened to make the instructional offerings relevant to the jobs available to Appalachian secondary school students.

"APPALACHIA" — a monthly journal of the Appalachian Regional Commission free

THE APPALACHIAN REGIONAL COMMISSION ANNUAL REPORT 1967 free

HEALTH ADVISORY COMMITTEE REPORT, MARCH 1966 free

EDUCATION ADVISORY COMMITTEE REPORT, 1968 free

D

BIBLIOGRAPHICAL MATERIAL DISPLAYED AT CONFERENCE

Prepared by J. E. Montgomery, VPI

Abma, E., and J. E. Montgomery, *Woning, Dorp En Dorpsgemeenschap In De Noordoostpolder*. Bulletin No. 16, Wageningen, 1958

Advisory Council on Public Welfare, *Having the Power, We Have the Duty*. Washington, D. C.: U. S. Department of Health, Education, and Welfare, June 29, 1966.

Andrews, Wade H., and Ward W. Bauder, *The Effects of Industrialization on a Rural County: Comparison of Social Change in Monroe and Noble Counties of Ohio*. Wooster, Ohio: Ohio Agricultural Research and Development Center, May 1968.

Appalachia, Volume 1, No. 6, March 1968.

Appalachia, Volume 1, No. 8, April 1968.

Appalachia, Volume 1, No. 9, May 1968.

Appalachian Regional Commission, *Appalachian Bibliography Subjects*. Morgantown: West Virginia University Library, 1967 (mimeographed).

Appalachian Regional Commission, *The Appalachian Region: A Statistical Appendix of Comparative Socioeconomic Indicators*. Washington, D. C.: 1666 Connecticut Avenue, N. W., March 1968 (mimeographed).

Appalachian Regional Commission, *The Appalachian Research Projects FY1965-FY1968*. Washington, D. C.: 1666 Connecticut Avenue, N. W., July 1968 (mimeographed).

Appalachian Regional Commission, *Evaluation of Timber Development Organizations*. Appalachian Research Report No. 1, Washington, D. C.: McDonald Associates, Inc., November 1966.

Appalachian Regional Commission, *Guidelines for an Appalachian Airport System*. Appalachian Research Report No. 3, Washington, D. C.: Management and Economics Research Incorporated, January 1967.

Appalachian Regional Commission, *Industrial Location Research Studies: Summary and Recommendations*. Appalachian Research Report No. 4, New York: The Fantus Company, Inc., December 1966.

Appalachian Regional Commission, *Industrial Location Research Studies: Reports 1-8*. Appalachian Research Report No. 5, New York: The Fantus Company, Inc., December 1966.

Appalachian Regional Commission, *Industrial Location Research Studies: Reports 9-16*. Appalachian Research Report No. 6, New York: The Fantus Company, Inc., December 1966.

Appalachian Regional Commission, *Industrial Location Research Studies: Reports 17-25*. Appalachian Research Report No. 7, New York: The Fantus Company, Inc., December 1966.

Appalachian Regional Commission, *Preliminary Analysis for Development of Central Appalachia*. Appalachian Research Report No. 8, Washington, D. C.: The Appalachian Regional Commission, March 6, 1968.

Appalachian Regional Commission, *Recreation as an Industry*. Appalachian Research Report No. 2, Washington, D. C.: Robert R. Nathan Associates, Inc., December 1966.

"Appalachia's Residents Switch from Farms to Factories to Earn a Living," *Rural Life*, April 1968, p. 11 (mimeographed)

"Available Publications of the Milbank Memorial Fund," New York: Milbank Memorial Fund, 40 Wall Street, January 1968 (mimeographed).

Basson, Priscilla, *Planning and Perception of Needs in Five Upstate New York Counties*. Ithaca, New York: New York State College of Agriculture at Cornell University, April 1968.

Beccaris, John M., *Analysis of the Use of Outdoor Recreational Facilities*. Atlanta, Georgia: Economic Development Administration, January 1967.

Beckmann, George M., Director, *The College and World Affairs*. Report of the Committee on the College and World Affairs, February 1964.

Benefit-Cost Analysis for Water Resource Projects: A Selected Annotated Bibliography. Knoxville: Tennessee Valley Authority, October 1967.

Booker, David E., *An Administrative Program for Resource Development*. Knoxville: Tennessee Valley Authority, November 1967.

Boyd, Virlyn A., and Carolyn A. Morgan, *Synthesis of Findings from Southern Regional Cooperative Research Projects S-44: Factors in the Adjustment of Families and Individuals in Low-Income Areas of the South*. Clemson, South Carolina: Clemson University, March 1966.

Brenner, Joseph, M.D.; et. al., *Hungry Children*. Atlanta, Georgia: Southern Regional Council, undated.

Brooks, Melvin S., and Robert L. Hilgendorf, *The Social Problems of Migrant Farm Laborers*. Carbondale, Illinois: Southern Illinois University, October 1960.

Brown, James S., "The Southern Appalachians and the Nation: A Tightening Web of Relationships," an address given at the 51st Annual Conference, Council of the Southern Mountains, Gatlinburg, Tennessee, February 20, 1963.

Brown, James S., Harry K. Schwarzweller, and Joseph J. Mangalam, "Kentucky Mountain Migration and the Stem-Family: An American Variation on a Theme by LePlay." *Rural Sociology*, Volume 28, No. 1, March 1963, pp. 48-69.

Brown, James S., "Population and Migration Changes in Appalachia," an address given at the Rural Appalachia in Transition Conference, Morgantown, West Virginia, October 18, 1967.

Brown, Louie A., *Measurements of Poverty in East Tennessee*. Johnson City: East Tennessee State University, April, 1965.

Bruton, Sally A., *Summer Tutorial Project*. Atlanta, Georgia: Office of Economic Opportunity, January 1968.

Burkhart, John M., *Vocational Rehabilitation of Disabled Public Assistance Clients*. Harlan: Kentucky Bureau of Rehabilitation Services, September 30, 1967.

Button, William H., *Wage Levels in Sheltered Employment*. Ithaca, New York: Cornell University, December 1967.

Campbell, Rex R., and Susan A. Mulvey, *Perception of Job Opportunities Among Low-Income Groups in Missouri*. University of Missouri: Agricultural Experiment Station, Res. Bull. B867, 1962.

Carp, Frances M. and Wanda M. Burnett, *Patterns of Living and Housing of Middle-Aged and Older People*. Washington, D. C.: U. S. Government Printing Office, 1966.

Carter, R. C., Dr., "Hill Sheep for Appalachia," *The National Journal of Sheep Production and Management*, Volume 9, No. 5, May 1964.

Center for Urban and Regional Studies, *The Comprehensive Planning Process*, Blacksburg, Virginia: Virginia Polytechnic Institute, March 1968.

Clements, Hubert M., Jack A. Duncan, and Richard E. Hardy, *The Unfit Majority: A Research Study of the Rehabilitation of Selective Service Rejectees in South Carolina*, South Carolina Vocational Rehabilitation Department, October 1967.

Coal . . . *The Curse and the Key: Overall Economic Development Program for the Southern West Virginia Economic Development District*. Prepared by the Southern West Virginia Economic Development Corporation, February 1968.

Commonwealth of Virginia, *Annual Report: Economic Opportunity Program 1966-1967*. Richmond: Office of Economic Opportunity, July 1, 1966-June 30, 1967.

Communities in Action, Volume 3, Washington, D. C.: Office of Economic Opportunity, February-March, 1968.

Community Action — the Board of Directors and the Executive Director. The Virginia Office of Economic Opportunity, Undated, (mimeographed).

Community Education: An Approach to Urban Problems. Blacksburg, Virginia: Virginia Polytechnic Institute, February, 1968.

Community Problems Report — Survey of Health, Education, Roads, Utility and Housing Problems in the Community of Vintroux. Vintroux, West Virginia: Community Improvement Committee, April 14, 1967.

Community Problems Report — Survey of Health, Roads, Education, Welfare, Utilities, Housing and Recreational Problems of the Community of McCorkle. McCorkle, West Virginia: Community Improvement Committee, April 21, 1967.

Coordinating International Programs and Activities at U. S. Colleges and Universities: A Directory. New York: Education and World Affairs, July 1967.

Copenhaver, J. S. and R. C. Carter, *Very Early Weaning (Confinement Rearing of Lambs) Rebreeding Ewes for Multiple Lambing.* Blacksburg, Virginia: Virginia Polytechnic Institute, Undated (mimeographed).

Cundiff, O. W., *A "Suggested" Guide for Working with Low-Income Families.* Blacksburg, Virginia: Virginia Polytechnic Institute, February 1966 (mimeographed).

Davis, Elizabeth Gould, *Low-Income Farm People — A Selected List of References.* Washington, D. C.: U. S. Government Printing Office, May 1955.

Davis, Lawrence S., "Use of Multi-Stage, Spatial Equilibrium Programming Models for Analysis of the Southern Appalachian Hardwood Lumber Industry," paper presented at the annual meeting of the Southern Economic Association, New Orleans, Louisiana, November 16, 1967.

Deacon, Ruth, Francille Maloch, and Ann Bardwell, *Relationship of Maternal Health to Family Solidarity Among Low-Income Families in 28 Appalachian Counties, Columbus, Ohio:* The Ohio State University, December 1967.

DeJong, Gordon F., *Fertility Data for the Southern Appalachian Region, 1930-1960.* Lexington: University of Kentucky Press, July 1963.

DeJong, Gordon, F., *Appalachian Fertility Decline.* Lexington: University of Kentucky Press, 1968.

A Description of Research in Agriculture and Life Sciences in the 1966-68 Biennium. Blacksburg, Virginia: Virginia Polytechnic Institute Research Division, May 1967.

Dimensions of Poverty in 1964. Office of Research, Plans, Programs, and Evaluation, OEO, October 1965.

Eberly, Donald J., "Service Experience and Educational Growth," *Educational Record*, Spring 1968.

Economic Data Summary — Russell County. Richmond, Virginia: Governor's Office, November 1967.

Economic Opportunity Act of 1964, As Amended. Washington, D. C.: U. S. Government Printing Office, 1967.

Economic Research Service, *Age of Transition — Rural Youth in a Changing Society.* Washington, D. C.: Government Printing Office, 1967.

Economic Research Service, *Economic Factors Influencing Educational Attainments and Aspirations of Farm Youth.* Washington, D. C.: U. S. Government Printing Office, April 1964.

Economic Research Service, *An Economic Survey of the Appalachian Region, With Special Reference to Agriculture*. Washington, D. C.: U. S. Government Printing Office, April 1965.

Economic Research Service, *An Economic Survey of the Ozark Region*. Washington, D. C.: U. S. Government Printing Office, July 1966.

Economic Research Service, *Employment, Unemployment and Low Incomes in Appalachia*. Washington, D. C.: U. S. Government Printing Office, May 1965.

Economic Research Service, *Supplement to Age of Transition... Rural Youth in a Changing Society*. Washington, D. C.: U. S. Government Printing Office, October 1967.

Education and World Affairs: An Overview. New York: Education and World Affairs, April 12, 1966.

Education and World Affairs Report on Program 1963-1964. New York: Education and World Affairs, March 1965.

Edwards, Allen D., and Dorothy G. Jones, *Housing in South Carolina — Its Socio-Economic Context*. Clemson: South Carolina Agriculture Experiment Station, Bulletin 511, April 1964.

An Evaluation of the Impact of the Community Action Program Upon Poverty Conditions of McDowell County. Human Resources Research Institute, West Virginia University, May 5, 1967 (mimeographed).

Faulk, W. Gilbert, *Legal Intern Experiences*. Atlanta, Georgia: Office of Economic Opportunity, January 1968.

Field, Arthur J., *Urbanization and Work in Modernizing Societies*. Detroit: Glengary Press, 1967.

Ford, Thomas R., "Status Residence and Fundamental Religious Beliefs in the Southern Appalachians," *Social Forces*, Volume 39, No. 1, October 1960, pp. 42-49.

Ford, Thomas R., ed., *Southern Appalachian Region: A Survey*. Lexington: University of Kentucky, 1962.

Foster, M. I., and Cynthia A. Smith, *A Computerized Plant Location Model for Market Oriented Firms*. Presented at the Southeastern Regional Science Association Meetings, April 6-7, 1967, Atlanta, Georgia.

Glenman, T. Keith, and Irwin T. Sanders, *The Professional School and World Affairs: Report of the Task Force on Agriculture and Engineering*. New York: Education and World Affairs, 1967.

Glenman, T. Keith and Irwin T. Sanders, *The Professional School and World Affairs: Report of the Task Force on Education*. New York: Education and World Affairs, 1967.

Glenman, T. Keith, and Irwin T. Sanders, *The Professional School and World Affairs: Report of the Task Force on Medicine and Public Health*. New York: Education and World Affairs, 1967.

Goldsmith, Harold F., *The Population of Pennsylvania — Growth: 1900-1960*. University Park: The Pennsylvania State University, August 1963.

Goldsmith, Harold F., and James H. Copp, "Metropolitan Dominance and Agriculture," *Rural Sociology*, Volume 29, No. 4, December 1964, pp. 385-395.

Goldsmith, Harold F., and S. Young Lee, *Income for Pennsylvania: 1960*. University Park: The Pennsylvania State University, College of Agriculture, October 1966.

Hanger, Keith R., *A Project to Demonstrate the Role of a State Vocational Rehabilitation Agency in Serving the Disabled Aged*. Washington, D. C.: Department of Health, Education, and Welfare, October 1967.

Harris, Phoebe T., *Effects of Foods and Nutrition Education on Food Practices of Low Income Families in Four Mississippi Counties, Summer 1966*. Home Economics Series No. 3, State College: Mississippi State University, December 1967.

Hillery, George A., Jr., "Navajos and Eastern Kentuckians: A Comparative Study in the Cultural Consequences of the Demographic Transition," *American Anthropologist*, Volume 68, No. 1, February, 1966.

Hillery, George A., Jr., James S. Brown, and Gordon F. DeJong, "Migration Systems of the Southern Appalachians: Some Demographic Observations," *Rural Sociology*, Volume 30, No. 1, March 1966, pp. 33-48.

Hinote, Hubert, *The Evolution of Methods Used in Evaluating Recreational Benefits of Multiple-Purpose Water Resource Projects*. Knoxville: Tennessee Valley Authority, August 1967.

Howard, John B., Dir., *The University and World Affairs*. New York: The Ford Foundation, December 1960.

Internship Programs in Resource Development 1967. Manpower for Development, Report for the U. S. Department of Labor, Internships in Manpower Development, Atlanta, Georgia: Office of Economic Opportunity, March 1968.

Janowitz, Morris, *Social Control of Escalated Riots*. Chicago: University of Chicago Press, 1968.

Jarvis, Marilyn A., "Screening in a Rural Setting," *The West Virginia Medical Journal*, Volume 62, February 1966, pp. 47-48.

John, Bruce M., "Appalachia — Problems and Solutions," presented at the annual meeting of the Association of Southern Agricultural Workers, Dallas, Texas, February 1965, (mimeographed).

John, Bruce M., *Educational Objectives in Working with the Disadvantaged*. West Virginia University, 1967 (mimeographed).

John, Bruce M., *Goals, Patterns, and Changes Among the Disadvantaged*. Undated (mimeographed).

Johnson, Cyrus M., et. al., *Mountain Families in Poverty*. Lexington: University of Kentucky, May 1967.

Jones, J. N., et. al., "The No-Tillage System for Corn (Zea, Mays L.)" *Agronomy Journal*, 60, January-February, 1968, pp. 17-20.

Jorgensen, Gary Q., et. al., *Interpersonal Relationships in Rehabilitation Counseling: A Literature Review*. Salt Lake City: Utah University Printing Service, 1967.

Kaufman, Harold F., et. al., *Poverty Programs and Social Mobility — Focus in Rural Populations of Lower Social Rank in Mississippi and the South*. State College: Mississippi State University, September 1966.

Keeling, William B., et. al., *Tourism Development in the Georgia Mountains Area*. Athens: University of Georgia, April 1967.

Kent, Donald P., *Part-time Employment for Older People*. Washington, D. C.: U. S. Government Printing Office, 1963.

King, Kendall W., *A Practical Program for Educating Mothers in Child-Feeding and Hygiene in the Emerging Nations*. Blacksburg, Virginia: Virginia Polytechnic Institute, October 1967.

Kuvlesky, William P., and Michael F. Lever, *Occupational Status Orientations of Negro Youth: Annotated Abstracts of the Research Literature*. College Station: Texas A & M University, June 1967.

Lambeth, William Arnold III, *Health-Related Needs and Resources in the Sequatchie Valley*. Atlanta, Georgia: Tennessee Valley Authority, January 1968.

Lampman, Robert J., "How Much Does the American System of Transfers Benefit the Poor?" reprinted from Leonard H. Goodman (ed.), *Economic Progress and Social Welfare*, New York and London: Columbia University Press, 1966.

Legal Services, *The Poor Seek Justice*. Washington, D. C.: U. S. Government Printing Office, 1967.

Lindstrom, D. E., *Factors Affecting Post-High School Educational and Job Plans of Rural Youth in Eight Illinois Counties in the 1963-1964 School Year*. Urbana: University of Illinois, June 1968.

Lowry, Stanley Todd, "The Appalachian Regional Development Act of 1965 and the Timber Development Organization Dilemma," *Journal of Forestry*, December 1966, pp. 785-791.

Marsh, Diane, *Hints for Creativity*. Total Action Against Poverty in Roanoke Valley, Inc. (mimeographed).

Masters, Nicholas A., *Politics, Poverty and Education: An Analysis of Decision-Making Structures*. University Park: Pennsylvania State University, February 1968.

Mays, William E., *Sublette Revisited: Stability and Change in a Rural Kansas Community after a Quarter Century*. Madison, New Jersey: Florham Park Press, Inc. 1968.

McAlister, James D., *Developing the Potential of Remote Sensing Applications in the Upper French Broad Area*. Knoxville: Tennessee Valley Authority, April 1967.

McCann, Glenn C., *North Carolina Rural Adjustment Studies: The Area and Its People*. Raleigh: North Carolina State College, May 1960.

McCarty, Carol L., and Beatrice M. Rosen, "Mental Health and Mental Health Services in Rural Communities," In Burchinal, Lee G. (ed.): *Rural Youth in Crises: Facts, Myths, and Social Change*. U. S. Department of Health, Education, and Welfare, Welfare Administration, Washington, D. C.: U. S. Government Printing Office, 1965, pp. 207-217.

McElveen, J. V., et. al., *Preliminary County Data for Economic Study of Coastal Plain Area, South Carolina*. Clemson, South Carolina: Clemson University, February 1967.

McGrain, Preston, *The Application of New Geological Maps to the Economic Growth of Kentucky*. Lexington: University of Kentucky, 1965.

McGrain, Preston and Garland R. Dever, Jr., *Limestone Resources in the Appalachian Region of Kentucky*. Lexington, Kentucky: University of Kentucky, 1967.

McNickle, Roma K., ed., *Differences that Make the Difference*. Washington, D. C.: Joint Commission on Correctional Manpower and Training, August 1967.

Mickel, George M., *Vocational Rehabilitation of Disabled Public Assistance Clients*. Charleston: West Virginia Board of Vocational Education, September 1967.

Montgomery, James E., *Social Characteristics of the Aged in a Small Pennsylvania Community*. University Park: Pennsylvania State University, 1965.

Moore, Elmer J., "A Critical Look at Poverty," paper given at the Regional Conference on Research Related to Poverty and Development in Appalachia, Virginia Polytechnic Institute, Blacksburg, Virginia, July 17, 1968 (mimeographed).

Moschler, W. W., et. al., "Winter Cover Crops for Sod-Planted Corn: Their Selection and Management," *Agronomy Journal*, Volume 59, 1967, pp. 547-551.

Murphy, Otis, *Attitudes and Social Characteristics of Vocational Rehabilitation Referrals*. Lexington: University of Kentucky, June 1967.

Murray, Donnie R., *Legal Intern as a Poverty Warrior*. Atlanta, Georgia: Office of Economic Opportunity, September 1967.

Nash, Ruth Cowan, ed., *Rural Youth in a Changing Environment*. Washington, D. C.: National Committee for Children and Youth, Inc., 1965.

A Nation Aroused. 1st Annual Report, Office of Economic Opportunity, 1965.

Nelsen, Hart M., and Anne K. Nelsen, *Bibliography on Appalachia: A Guide to Studies Dealing with Appalachia in General and Including Rural and Urban Working Class Attitudes Toward Religion, Education, and Social Change*. Bowling Green: Western Kentucky University, February 1968 (mimeographed).

Nelsen, Hart M., *A Brief Comparison of the Appalachia Research Project Sample with the Membership and Church Population from Which the Sample Was Drawn*. Bowling Green: Western Kentucky University, April 1967.

Nelsen, Hart M., *The Appalachian Presbyterian: Some Rural-Urban Differences*. Bowling Green: Western Kentucky University, February 1968.

Nelsen, Hart M., *Correlates of Isolation*. Bowling Green: Western Kentucky University, June 1968 (mimeographed).

Nesius, Ernest J., *Outline — Who Are the Disadvantaged in West Virginia?* Morgantown: West Virginia University, April 21, 1964 (mimeographed).

Nesius, Ernest J., Dir., Report of First Year's Activities of the Pilot Project with Low Socio-Economic Families in Kanawha Area, Morgantown: West Virginia University, August 1965 (mimeographed).

Nesius, Marie, *Report and Evaluation, Summer Recreational Program*. Morgantown: West Virginia University, 1967 (mimeographed).

Niblock, John S., "Student Internships in Resource Development," *Regional Action*, Volume 19, No. 1, March 1968.

Orshansky, Mollie, "Recounting the Poor — A Five-Year Review," *Social Security Bulletin*, April 1966.

The Overseas Selection of Foreign Students. New York: Education and World Affairs, April 1966.

Paltiel, Freda L., *Poverty: An Annotated Bibliography and References*. Ottawa: The Canadian Welfare Council, 1966.

The People Left Behind. Washington, D. C.: U. S. Government Printing Office, September 1967.

Philson, Kathryn, *Folded Garment Storage for Southern Farm Homes*. Auburn, Alabama: Auburn University, May 1962.

Philson, Kathryn, *Storage Walls*. Auburn, Alabama: Auburn University, June 1963.

Philson, Kathryn, *Temperature and Humidity Studies — Effects of*

Using Electric Range Surface Units for a Medium Length Cooking Process, Auburn, Alabama: Auburn University, June 1964.

Philson, Kathryn, *Temperature and Humidity Effects of Cooking Pot Roasts*, Blacksburg, Virginia: Virginia Polytechnic Institute, June 1965.

Photiadis, John D., *Rural Southern Appalachia and Mass Society, An Overview*. Morgantown: West Virginia University, 1967.

Productivity and Poverty. Racine, Wisconsin: The Johnson Foundation, Inc., 1966.

Public Law 90-222, 90th Congress, December 23, 1967.

Ramsey, Ralph J., *Forms and Scope of Poverty in Kentucky*. Lexington: University of Kentucky, 1967.

Ravenscroft, Dennis G., *Users of Outdoor Recreational Facilities*. Atlanta, Georgia: Economic Development Administration, February 1968.

Rosen, Beatrice M., "Rural Outpatient Health Services for Children 1965," presented at the National Outlook Conference on Rural Youth, October 22-26, 1967, Washington, D. C.

Reduced and No-Tillage Practices for Growing Corn in Virginia. Blacksburg: Virginia Polytechnic Institute, June 1965.

Scheelen, Robert, and Harwick Stuart, Jr., *The Housing Project as a Social System*. Roanoke Valley: Office of Economic Opportunity, August 1967.

Schorr, Alvin L., *Slums and Social Insecurity*. Washington, D. C.: U. S. Government Printing Office, 1966.

Schwarzweiler, Harry K., and James S. Brown, "Education as a Cultural Bridge Between Eastern Kentucky and the Great Society," *Rural Sociology*. Volume 27, No. 4, December 1962.

Schwarzweiler, Harry K., *Career Placement and Economic Life Chances of Young Men from Eastern Kentucky*. Lexington: University of Kentucky, May 1964.

Schwarzweiler, Harry K., *Family Ties, Migration & Transitional Adjustment of Young Men from Eastern Kentucky*. Lexington: University of Kentucky, May 1964.

Schwarzweiler, Harry K., "Education, Migration, Economic Life Chances of Male Entrants to the Labor Force from a Low-Income Rural Area," *The West Virginia Medical Journal*, January 1967, pp 8-11.

Schwerha, Joseph J., Ernest W. Chick, Marilyn A. Jarvis, "A Unique Learning Experience: Community Health in a Rural Area," *The West Virginia Medical Journal*, January 1967, pp. 8-11.

Shear, G. M., "The Role of Herbicides in No-Tillage Crop Production," *Agricultural Chemicals*, April 1965.

Shriver, Sargent, "Poverty," *The Encyclopedia Americana*, 1965.

Slocum, Walter L., *Aspirations and Expectations of the Rural Poor — A Guide to Research*, Washington, D. C.: U. S. Government Printing Office, October 1967.

Social and Rehabilitation Service, *Research and Demonstration Projects*. Washington, D. C.: U. S. Government Printing Office, 1968.

Spencer, Gary, *A Comparative Study of the Reduction of Dependency in Four Low-Income Housing Projects: A Description and Conceptual Introduction*. Boston: Northeastern University, August 1967.

Sperry, Irwin V., and Ann E. Herrin, *Educational and Vocational Goals of Rural & Urban Youth in North Carolina*. Greensboro: The University of North Carolina, December 1967.

Stockwell, Edward G., and Harold F. Goldsmith, *Age-Sex Composition of the Northeast Region: 1950 to 1960*. Storrs: The University of Connecticut, December 1966.

Stockwell, Edward G., and Harold F. Goldsmith, *Labor Trends and Unemployment in Connecticut and the Northeast Region*. Storrs: The University of Connecticut, December 1966.

Stockwell, Edward G., and Harold G. Goldsmith, *Educational Characteristics of the Population of Connecticut and the Northeast Region*. Storrs: The University of Connecticut, May 1966.

Street, Paul, *Vocational Rehabilitation Needs and Resources in Eastern Kentucky*. Lexington: University of Kentucky, January 1967.

Sussman, Marvin B. ed., *Sociology and Rehabilitation*. Washington, D. C.: American Sociological Association, December 1965.

Taylor, Terry E., *Motivational Factors Involved in Continued Schooling Among Grades 9-12 in Clay County, N. C.* Knoxville: Tennessee Valley Authority, April 1967.

Thompson, Janice M., Harold F. Goldsmith, and Edward G. Stockwell, *Socioeconomic Ranking of Counties in the Northeastern United States from Virginia to Maine: 1960*.

Tritschler, Donald C., *Health and Sanitation Needs and Resources, Bradley County, Tennessee*. Knoxville: Tennessee Valley Authority, November 1966.

"The Urban Crises: An Analysis, An Answer," *The American Federationist*, October, 1967.

United Cerebral Palsy Association, Inc., "Conference on Protective Supervision and Services for the Handicapped," New Kensington, Pennsylvania, November 15-17, 1966.

U. S. Department of Agriculture, *Resources in Action*. Washington, D. C.: U. S. Government Printing Office, June 1967.

U. S. Department of Agriculture, *Communities of Tomorrow*, Washington, D. C.: U. S. Government Printing Office, November 1967.

"Virginia High School Dropouts 1966-1967," *Statistical Report*, Richmond: State Department of Education, September 1967 (mimeographed).

Virginia's Opportunity in Agriculture. Blacksburg, Va.: Virginia Polytechnic Institute, August 1964.

Virginia State Department of Health, *Statistical Annual Report*. Richmond: Commonwealth of Virginia, December 31, 1965.

Vista-Volunteers in Service to America. Washington, D. C.: Office of Economic Opportunity, December 1967.

Voluntary Help Wanted for War on Poverty Projects. Washington, D. C.: Office of Economic Opportunity, Spring 1968.

Walrath, Arthur J., *Rural Land Ownership and Economic Development of a Three-County Area*. Blacksburg, Virginia: Virginia Polytechnic Institute, September 1967.

Walrath, Arthur J., and W. L. Gibson, Jr., *The Evaluation of Investment Opportunities — Tools for Decision-Making in Farming and Other Businesses*. Washington, D. C.: U. S. Government Printing Office, February 1968.

The War on Poverty — A Handbook. Washington, D. C.: National Catholic Coordinating Committee on Economic Opportunity, September 28, 1964.

Weller, Jack E., *Yesterday's People: Life in Contemporary Appalachia*. Lexington: University of Kentucky Press, 1965.

Wicker, James Jr., *Federal and State Assistance Programs in Southwest Mississippi*. Atlanta, Georgia: Economic Development Administration, September 1967.

Widner, Ralph R., "A Challenge to Action: Research and Planning for Regional Development," paper before the Regional Conference on Research Related to Poverty.

Wilson, James D., *Water Supply Systems in the Upper French Broad River Basin*. Knoxville: Tennessee Valley Authority, December 1966.

Wise, James O., *Selected Crop and Livestock Budgets for North Georgia*. Athens: University of Georgia, March 1964.

Wise, James O., and E. Evan Brown, *Forest and Water Resources in the Appalachian Area of Georgia*. Athens: University of Georgia, October, 1967.

White Americans in Rural Poverty. Washington, D. C.: U. S. Government Printing Office, November 1967.

Youmans, E. Grant, *Aging Patterns in a Rural and an Urban Area of Kentucky*. Lexington: University of Kentucky, March 1963.

SUPPLEMENTARY LIST

Bird, Alan R., "Poverty in Rural Areas of the United States," *Agr. Econ. Rep. No. 63*, ERS, USDA, Nov. 1964.

Bird, Alan R., "Development and Antipoverty Work," mimeo., Economic Development Section, ERS, USDA, Mar. 15, 1967.

Bird, Alan R. and John L. McCoy, "White Americans in Rural Poverty," *Agr. Econ. Rep. No. 124*, ERS, USDA, Nov. 1967.

Economic Development Division, "A Summary of Current Programs 10-1-67 and Preliminary Report of Programs for 10-1-66 to 9-30-67," mimeo. ERS and Related work of the State Experiment Stations, USDA, Oct. 1, 1967.

Fuller, Theodore E., "Employment in Appalachia: Trends and Prospects," mimeo., *Agr. Econ. Rep., No. 134*, ERS, USDA, June 1968.

Krokowski, Martin, "Availability and Use of Health Services . . . Rural-Urban Comparison," *Agr. Econ. Rep., No. 139*, ERS, USDA, July 1968.

Southern, John H., "Regional Growth and Development and Rural Areas," mimeo., Resource Development Economics Division, ERS, USDA, Nov. 1962.

Tarver, James D. and Calvin L. Beak, "Population Trends of Southern Metropolitan Towns, 1950 to 1960." *Rural Sociology*, 33:1, p. 19-29, March 1968.

Upchurch, M. L., "This is ERS," ERS 333, Reprint from the Farm Index, ERS, USDA, April 1966.

Zimmer, John M. and Elsie S. Manny, "Farm Operator Level-of-Living Indexes for Counties of the United States, 1950, 1959, and 1964". *Statistical Bulletin No. 406*, ERS, USDA, June 1967.

MISCELLANEOUS BROCHURES

Appalachia Research Project: List of Bulletins and Papers. Bowling Green: Western Kentucky University, July 10, 1968 (mimeographed).

Bowman, Jane, A Report on the Day Camp Held at Vintroux, Putnam County, August 15-19, 1965 (mimeographed).

Community Improvement Workshop Program. McCorkle Elementary School, McCorkle, West Virginia, April 21, 1967, (mimeographed).

Cooperatives in Rural Community Action. Washington, D. C.: Community Action Program, Office of Economic Opportunity, undated.

Facts for Poverty, Myths on Poverty. Based on research conducted by West Virginia University, undated (mimeographed).

Family Counseling in Rural Community Action. Washington, D. C.: Community Action Program, Office of Economic Opportunity, undated.

Introducing a Special Women's Project for Health Occupations Training. Blue Ridge Job Corps, Marion, Virginia, undated.

Neighborhood Economic Institute Giving Help and Better Opportunities for Redevelopment—N.E.I.G.H.B.O.R., Newport News, Virginia: Newport News Office of Economic Opportunity, undated.

A News Summary of the War on Poverty. Washington, D. C.: U. S. Government Printing Office, March 18, 1968.

Project Head Start and How You Can Help. Washington, D. C.: Office of Economic Opportunity, 1967.

Rehabilitation Research and Demonstration Projects on Poverty and Related Areas. Washington, D. C.: U. S. Government, Social and Rehabilitation Service, February 14, 1968 (mimeographed).

VISTA Serves: A Summary. Washington, D. C.: U. S. Government Printing Office, 1967.

APPENDIX I

THE PEOPLE WHO TOOK PART

In this Appendix will be found:

A. An alphabetical list of all who were registered at the conference and who took part in the conference, together with their identification and address;

B. The names and institutions of the participants in the interdisciplinary discussion sessions;

C. The names of the participants in the interinstitutional sessions, with their identification (title) and the state from which they came;

D. The names of the chairmen, recorders and reactors handling and taking part in the unidisciplinary (interest group) sessions (it was unfortunate that no roll call was taken of those attending these sessions, an oversight of the sponsoring committee chairman).

E. The names of the VPI Conference Committee.

A

ALPHABETICAL LIST OF PARTICIPANTS

Jerome Arbarbanel, Institutional Research, Pikeville College, Pikeville, Kentucky 41501.

Nathan E. Acree, General Research and Development, Health, Education and Welfare, Washington, D. C. 20201.

Carl W. Allen, Department of Economics, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Susan T. Ames, Upward Bound Program, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Roman B. Aquizap, Human Resources Institute, West Virginia University, Morgantown, West Virginia 26506.

Ann Bardwell, Department of Home Economics, Ohio State University, Columbus, Ohio 43210.

Charles L. Bertram, Division of Research, Virginia State Department of Education, Richmond, Va. 23216.

G. W. Beyer, Chemical Engineering Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

A. B. Biscoe, Jr., Center for Business and Research, University of Tennessee, Knoxville, Tenn. 37916.

James H. Boyd, Political Science Department, University of South Alabama, Mobile, Ala. 36608.

Bruce M. Boyle, Office of Institutional Research, Appalachian State University, Boone, N. C. 28607.

Irvin H. Bromall, Department of Government, Ohio University, Athens, O. 43701.

B. B. Brown, Jr., Southern West Virginia Economic Development Corporation, Bluefield, W. Va. 24701.

James S. Brown, Sociology Department, University of Kentucky, Lexington, Ky. 40506.

C. P. Brumfield, Jr., Total Action Against Poverty in Roanoke Valley, Roanoke, Va.

W. Buchanan, Department of Political Science, Washington & Lee University, Lexington, Va. 24450.

Charles Burchard, College of Architecture, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Franklin B. Caffé, Program Development, Health Services & Mental Health Administration, Bethesda, Md. 20201.

R. Lee Chambliss, Jr., Agricultural Economics Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

W. E. Chappell, Plant Pathology & Physiology Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Robert D. Childers, Virginia & West Virginia Field Activities, Appalachia Educational Laboratory, Charleston, W. Va. 25300.

Charles L. Cleland, Dept. of Agricultural Economics & Rural Sociology, University of Tennessee, Knoxville, Tenn. 37916.

Robert K. Coe, Department of Business Administration, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

R. M. Colver, Regional Programs, Duke University, Durham, N. C. 27705.

M. C. Conner, Dept. of Agricultural Economics, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

N. W. Conner, Univ. Research, North Carolina State University, Raleigh, N. C. 27607.

Homer C. Cooper, Social Science Research Institute, University of Georgia, Athens, Ga. 30601.

Jack S. Copenhaver, Animal Science Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

C. M. Coughenour, Sociology Department, University of Kentucky, Lexington, Ky. 40306.

George Dalley, Montgomery-Floyd-Radford-Craig CAP, Christiansburg, Va. 24073.

Doris Damiani, Christiansburg Community Center, Inc., Christiansburg, Va. 24073.

Donald C. Darnton, Economics Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

LaMyra H. Davis, Institute on Research in Human Resources, N. C. A & T State University, Greensboro, N. C. 27400.

Larry Davis, Dept. of Forestry and Wildlife, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Conley H. Dillon, States Regional Office, Appalachian Regional Commission, University of Maryland, College Park, Md. 20742.

Dorothea Dolan, Rural Mental Health, National Institute of Mental Health, Chevy Chase, Md. 20203.

P. B. Douglas, Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Loren W. Dow, Sociology Department, Emory and Henry College, Emory, Va. 24237.

Richard B. Drake, History and Political Science Department, Berea College, Berea, Ky. 40403.

John E. Dunkelberger, Dept. of Rural Sociology, Auburn University, Auburn, Ala. 36830.

Delwyn A. Dyer, Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Robert I. Edelman, Psychology Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Harold Feldman, Dept. of Child Development, College of Home Economics, Cornell University, Ithaca, N. Y. 14850.

Donald R. Fessler, Agricultural Economics & Rural Sociology, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Thomas R. Ford, Sociology Department, University of Kentucky, Lexington, Ky. 40506.

L. W. Frame, Floyd-Giles-Montgomery-Radford Health Department, Virginia Health Department, Blacksburg, Va. 24060.

Michael J. Freeman, Navigation Resources Branch, Tennessee Valley Authority, Knoxville, Tenn. 37916.

Eula Fullerton, Virginia Department of Welfare & Institutions, Abingdon, Va. 24210.

William E. Garnett, Rural Sociology (Emeritus), 804 Draper Road, Blacksburg, Va. 24060.

W. L. Gibson, Jr., Agricultural Economics Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Mrs. Turner Gilmer, Lebanon, Va. 34266.

Harold F. Goldsmith, Population Research Center, Mental Health Study Center, Adelphi, Md. 20783.

William J. Grasty, Accounting Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Paul N. Guthrie, Jr., State Planning Task Force, State of North Carolina, Raleigh, N. C. 27607.

William B. Harrison, Research Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Michael Hart, Resource Development Project, Southern Regional Education Board, Atlanta, Ga. 30313.

Victor Hess, Institute for Regional Development, Ohio University, Athens, O. 45701.

James Hilander, Sociology Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Robert Hilmon, Human Resources Specialist, Bluefield, W. Va. 24701.

Hubert Hinote, Navigation Development, Tennessee Valley Authority, Knoxville, Tenn. 37902.

Frank H. Hooper, Family Resources Division, Human Resources of Education, West Virginia University, Morgantown, W. Va. 26506.

Josiah Hoskins, Jr., Community & Resource Development, University of Georgia, Athens, Ga. 30601.

Homer T. Hurst, Agricultural Engineering Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Janet Hutchinson, Family Resources, West Virginia University, Morgantown, W. Va. 26506.

Barbara E. James, Human Resources Research Institute, West Virginia University, Morgantown, W. Va. 26506.

Paul J. Jehlik, U. S. Department of Agriculture, Cooperative State Research Service, Washington, D. C. 20250.

Grover Jenkins, Economic Opportunity Program, 1010 James Madison Bldg., State of Virginia, Richmond, Va. 23219.

W. M. Jenkins, Jr., Bowling Green College of Commerce, Western Kentucky University, Bowling Green, Ky. 42101.

Hans E. Jensen, Department of Economics, The University of Tennessee, Knoxville, Tenn. 37916.

M. E. John, Department of Agricultural Economics & Rural Sociology, The Pennsylvania State University, State College, Pa. 16802.

Robert E. Jones, Consulting Psychologist, National Institute of Mental Health, Charlottesville, Va. 22901.

Barbara Kaplan, Research Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Sylvan J. Kaplan, Research Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Ralph G. Kline, Agricultural Economics Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.

- Edward E. Knipe, Sociology Department, East Tennessee State University, Johnson City, Tenn. 37601.
- John W. Kohl, College of Education, The Pennsylvania State University, University Park, Pa. 16802.
- Thomas M. Lerner, Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Anne Leibig, Field Representative, Office of Economic Opportunity, Washington, D. C. 20506.
- Helen M. Lewis, Sociology Department, East Tennessee State University, Johnson City, Tennessee 37601.
- James H. Lillard, Agricultural Engineering Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- David E. Lindstrom, Research Division, 317 Lane Hall, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- George W. Litton, Head, Department of Animal Science, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- R. B. Lloyd, Community Action Board, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Todd Lowry, Department of Economics, Washington & Lee University, Lexington, Va. 24450.
- Dick Lucas, Mining Engineering Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Donald Madison, U. S. Office of Public Health Service, Department of Health, Education, and Welfare, Washington, D. C.
- Glenn C. McCann, Sociology & Anthropology Dept., North Carolina State University, Raleigh, N. C. 27607.
- Gene McMurtrey, Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- J. Patrick Madden, Agricultural Economics Dept., Pennsylvania State University, State College, Pa. 16802.
- Carl E. Madewell, Agricultural Economics Dept., Tennessee Valley Authority, Muscle Shoals, Ala. 35660.
- Francille Maloch, Home Economics Dept., Ohio State University, Columbus, O. 43210.
- Eli P. March, Research Director, Appalachian Regional Commission, 1666 Connecticut Avenue, N. W., Washington, D. C. 20235.
- J. Paxton Marshall, Agricultural Economics Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Joseph Barry Mason, Office of the President, Commerce-Marketing, University of Alabama, Tuscaloosa, Ala. 35486.
- P. Howard Massey, Jr., Research & Graduate Studies, College of Agriculture, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

H. Lee Mathews, Marketing Dept., Pennsylvania State University, University Park, Pa. 16802.

Beatrice E. Meany, Community Developer, Buchanan-Dickenson Rural Area Development Corporation, Haysi, Va. 24256.

Allen Mickelsen, School of General Studies, University of Virginia, Charlottesville, Va. 22901.

H. H. Mitchell, College of Business, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

James E. Montgomery, Management, Housing & Family Development Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Elmer Moore, Office of the Director, Office of Economic Opportunity, Washington, D. C. 20506.

James M. Moore, Agricultural Economics Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Paul J. Moore, Extension Education, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Earl W. Morris, Housing and Design, Cornell University, Ithaca, N. Y. 14850.

William V. Pace, Agricultural Economics Dept., Tennessee Valley Authority, Muscle Shoals, Ala.

Helen Smith Patterson, Christiansburg Community Center, Inc., Christiansburg, Va. 24070.

Bryan Phifer, CRD Division, U. S. Department of Agriculture, Washington, D. C. 20250.

G. Howard Phillips, Agricultural & Rural Sociology Dept., Ohio State University, Columbus, Ohio 43210.

Kathryn Phison, Management, Housing and Family Development Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24060.

Kathryn S. Powell, School of Home Economics, Winthrop College, Rock Hill, S. C. 29730.

Mary V. Pullen, Extension Agent, West Virginia University, Institute, W. Va. 25112.

Robert E. Reiman, College of Business, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

J. D. Richardson, College of Business, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

S. J. Ritchey, Department of Human Nutrition & Food, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Howard F. Robinson, Research Administration, A & T State University, Greensboro, N. C. 27411.

Robert L. Rogers, The Wesley Foundation, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

- Wessel Ruhtenberg, Local Planner, Big Stone Gap, Va. 24219.
- George E. Russell, Director, Research Dev. & Home Economics Dept., Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- B. J. Sabaroff, College of Architecture, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Rose Sabaroff, Education Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Robert L. Savage, Research & Industrial Liaison, Ohio University, Athens, O. 45701.
- Alice Scates, U. S. Office of Education, 301 G Street, S. W., Washington, D. C. 20024.
- Martin Schnitzer, College of Business Administration, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- G. Myron Shear, Plant Pathology and Physiology, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Walter Shell, Dept. of Education, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Carl Shelton, Jr., Mining Engineering Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Cynthia Simpson, Navigation Development, Tennessee Valley Authority, Knoxville, Tenn. 37902.
- William E. Skelton, Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Wil J. Smith, Office of Research and Development, West Virginia University, Morgantown, W. Va. 26506.
- William M. Smith, Jr., Cooperative Extension Service, Pennsylvania State University, University Park, Pa. 16802.
- Thomas Snider, Agricultural Economics Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Wilson Snipes, Department of English, Virginia Polytechnic Institute, Blacksburg, Va. 24061.
- Eugene E. Stanaland, Economics Dept., Auburn University, Auburn, Ala. 36830.
- Per G. Stensland, Technical Staff, Milbank Memorial Fund, New York, N. Y. 10005.
- John B. Stephenson, Sociology Department, University of Kentucky, Lexington, Ky. 40506.
- Jack Stockton, Director, Adult Education & Community Services, Southwest Virginia Community College, Richlands, Va. 24641.
- Paul Street, Center for Developmental Change, University of Kentucky, Lexington, Ky. 40506.

W. Strickland, College of Arts & Sciences, Appalachian State University, Boone, N. C. 28607.

Leland B. Tate, Sociology Department, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Robert E. Thacker, Division of Planning and Community Affairs, Virginia Commonwealth, Richmond, Va. 23219.

Enid F. Tozior, Clothing, Textiles, & Related Arts Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Paul E. Trammel, LENOWISCO, Big Stone Gap, Va. 24219.

John E. Troutman, Education & Training Technology Div., KDI Corporation, Bethesda, Md. 20014.

Dean F. Tuthill, Agricultural Economics Dept., University of Maryland, College Park, Md. 20742.

Jack M. Tyree, 4-H Dept., Extension Division, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

J. F. Vallery, Economics Dept., University of Alabama, University, Ala. 35486.

Ethel L. Vatter, College of Home Economics, Cornell University, Ithaca, N. Y. 14850.

Richard P. Wakefield, Center for Studies of Metropolitan Mental Health Problems, National Institute of Mental Health, Chevy Chase, Md. 20014.

James R. Washburn, College of Architecture, Clemson University, Greenville, S. C. 29631.

John H. Watson, Department of Sociology & Anthropology, Mississippi State University, State College, Miss. 37962.

Glen C. Weber, Office of Tributary Area Development, Tennessee Valley Authority, Knoxville, Tenn. 37902.

Ernest R. Weidhass, College of English, Pennsylvania State University, University Park, Pa. 16802.

Irwin Weinstock, Business Administration Dept., Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Robert H. West, Economics and Business Dept., Appalachia State University, Boone, N. C. 28607.

Ralph R. Widner, Executive Director, Appalachian Regional Commission.

C. Ray Williams, Blacksburg, Va. 24061.

Ted Williams, Deputy Director, Montgomery-Floyd-Radford-Craig CAP, Christiansburg, Va. 24073.

James O. Wise, Agricultural Economics Dept., University of Georgia, Athens, Ga. 30601.

Wylie Yelverton, Rural Programs, Office of Economic Opportunity, Washington, D. C. 20506.

Paige Young, Information & Evaluation, Total Action Against Poverty, Roanoke, Va.

Phil Young, Board of National Missions, United Presbyterian Church, Blacksburg, Va. 24060.

B

PARTICIPANTS IN THE INTERDISCIPLINARY GROUP SESSIONS

Group I had as its discussion leader Robert F. Edelman (Psychology, VPI) and as its recorder Paul J. Moore (Extension on Education, VPI). The participants included E. H. Hobbs (Arts and Sciences, Auburn), M. C. Schnitzer (Business Administration, VPI), John Watson (Sociology, Mississippi), Ann Bardwell (Home Economics, Ohio), J. E. Dunkelberger (Rural Sociology, Auburn), N. A. Masters (Political Science, Pennsylvania State), R. G. Henderson (Plant Pathology, VPI), Frank Hooper (Education, West Virginia), Donald Fessler (Extension Education, VPI), S. T. Lowry (Economics, Washington & Lee), W. H. Smith (Extension, Pennsylvania State), A. J. Walrath (Agricultural Economics, ERS at VPI), J. O. Wise (Agricultural Economics, Georgia), Dorthea Dillon (NIMH), Donald K. Hess (OEO, Washington), Robert R. Hilmon (Economic Development Corporation, Bluefield, W. Va.), F. E. Dreifress (Neurology, Virginia U.), I. W. Scherer (NIMH), Calvin M. Kumin (Preventative Medicine, Virginia U.), and Baldwin Lloyd (Blacksburg, Va.).

Group II had as its discussion leader Bernard Sabaroff (Architecture, VPI) and R. L. Chambliss (Agricultural Economics, VPI) as recorder. The participants included Eugene Stanaland (Sociology, Auburn), H. Lee Mathews (Business Administration, Pennsylvania State), R. G. Kline (Agricultural Economics, VPI), Paul Street (OEO Evaluation, U. of Kentucky), Louis Levine (Economics, Pennsylvania State), G. M. Shear (Plant Pathology, VPI), Francille Maloch (Home Economics, Ohio), Leland B. Tate (Sociology, VPI), Conley H. Dillon (Business and Administration, Maryland), I. H. Bromall (Government, Ohio U.), Joseph B. Mason (Academic Affairs, Alabama), W. D. Richmond (Wise, W. Va.), Mrs. Eula Fullerton (Welfare Administration, Abingdon, Va.), Jerome Arbarbanel (Institutional Research, Pikeville College), Herbert Hinote (TVA), Arnold Almond (State Planning Bureau, Atlanta), Harold F. Goldsmith (NIMH).

Group III had as its discussion leader S. J. Ritchey (Foods and Human Nutrition, VPI), James Hilander (Sociology, VPI) and James I. Moore (Agricultural Economics, VPI) serving alternately as recorder. The participants included J. R. Washburn (Architecture, Clemson), C. M. Coughenour (Home Economics, Kentucky), M. E. John (Agricultural Economics and Rural Sociology, Pennsylvania State), J. F. Vallery (Economics, Alabama), E. M. Morris (Housing and Design, Cornell), S. C. Ritchey (Food and Nutrition, VPI), Homer C. Cooper (Social Science Research, Georgia), Gene McMurtry (Extension, VPI), N. W. Conner (Extension, North Carolina State), Richard B. Drake (History and Political Science, Berea), James M. Moore (Agricultural Economics, VPI), E. R. Weidhass (Engineering, Pennsylvania State), Robert West (Economics and Business, Appalachian State), Josiah H. Hoskins (Extension Research, Georgia), Paige Young (Total Action Against Poverty, Roanoke), P. E. Trammel (Regional Planning, Big Stone Gap, Va.), R. E. Jones (Consulting Psychologist, NIMH Region III), Wingate Lucas (Director, Mid-Appalachia Council), Frank Lovrich (Sociology, Appalachian State).

Group IV had as its discussion leader J. Richard Lucas (Mining Engineering, VPI), and E. T. Weinstock (Business Administration, VPI) as its recorder. The participants included Roman Aquizap (Child Development, West Virginia), J. S. Copenhaver (Animal Science, VPI), Harold Feldman (Home Economics, Cornell), Glenn McCann (Sociology, North Carolina State), R. W. Colver (Regional Programs, Duke), Helen Lewis (Sociology, East Tennessee), William Grasty (Accounting, VPI), James S. Brown (Sociology, Kentucky), Kathryn Philson (Home Economics, VPI), James Boyd (Sociology, Southern Alabama), J. Patrick Madden (Sociology, Pennsylvania State), Barbara James (Child Development, West Virginia), Wil H. Smith (Research and Development, West Virginia), LaMyra H. Davis (Bureau of Resources, N. C. State A & T), William Jenkins (Western State College), Wesel Ruthenburg, (Big Stone Gap, Va.), Bruce Robinette (LENOWISCO, Big Stone Gap, Va.), Mrs. Cynthia S. Simpson (TVA), Ira Kaye (OEO), Andrew Chafin, (Cumberland Plateau Economic Development Commission), Max E. Glenn (Executive Director, Commission on Religion in Appalachia).

Group V had as its discussion leader J. H. Lillard (Agricultural Engineering, VPI), and D. A. Dyer (Extension 4-H, VPI), as recorder. The participants included E. E. Knipe (Sociology, East Tennessee University), Ethel L. Vatter (Home Economics, Cornell), C. L. Cleland (Rural Sociology, Tennessee), Janet Hutchinson (Family Resources, West Virginia), Lawrence Davis (Forestry, VPI), T. R. Ford (Sociology,

Kentucky), John Kohl (Educational Administration, Appalachian Educational Laboratory), Enid Tozier (Clothing and Textiles, VPI), L. G. Hull (Adult Education, N. C. State), William Buchanan (Political Science, Washington & Lee), Dean F. Tuthill (Agricultural Economics, Maryland), H. F. Robinson (Research Administration, N. C. State A & T), H. A. Henderson (TVA), Gerome Greene (OEO), Byron Phyfer (Federal Extension), and P. E. Trammel (LENOWISCO, Big Stone Gap, Va.).

Group VI had as its discussion leader Wilson C. Snipes (English, VPI), Thomas M. Larner (Technical Services, VPI) and Paxton Marshall (Agricultural Economics, VPI), alternated at being the recorder. Participants included Kathryn Powell (Home Economics, Winthrop College), W. C. Chappell (Plant Pathology, VPI), John B. Stephenson (Sociology, Kentucky), Loren Dow (Sociology, Emory and Henry), Jacob B. Kaufman (Economics, Pennsylvania State), Robert E. Reiman (Graduate School, Appalachian State), Gene Boyle (Economics, VPI), J. B. Adair (Education, N. C. State), A. B. Biscoe (Business Administration, Tennessee), Mary V. Pullen (Extension, Center for Appalachian Studies), Mrs. Turner A. Gilman (Lebanon, Va.), Eli March (Appalachian Regional Commission), Richard Bodamer (S. C. Appalachian Advisory Commission), Paul Hutchison, Jr. (W. Va. Department of Commerce), Grover C. Jenkins (OEO, Va.), Richard P. Wakefield (NIMH), R. E. Thacker (Planning and Community Affairs, Virginia), and Glenn Weber (TVA).

C

PARTICIPANTS IN THE INTERINSTITUTIONAL GROUP SESSIONS

Session No. 1: L. F. Malpass, Dean, Arts and Sciences, VPI, discussion leader; P. S. Massey, Associate Dean, Agriculture, recorder; John Dunkelberger, Arts and Sciences, Auburn; Joseph Barry Mason, Director of Special Projects, Alabama; M. E. John, Head, Agricultural Economics and Rural Sociology, Pennsylvania State; Homer C. Cooper, Director, Social Science Research Institute, Georgia; J. O. Wise, Head, Agricultural Economics, Georgia; Wingate Lucas, Executive Director, Mid-Appalachia College Council; Dean F. Tuthill, Cooperative Extension Service, Maryland; Robert M. Colver, Assistant to the President for Regional Affairs, Duke; Milton Dolinger, Independence, Virginia.

Session No. 2: Coyt Wilson, Director, Research Division, VPI, discussion leader; James Montgomery, Head, Management, Housing and Family Development, VPI, recorder; T. R. Ford, Chairman, Sociology, Kentucky; Conley H. Dillon, Professor, Government, Maryland; William C. Strickland, Dean, Arts and Sciences, Appalachian State; A. B. Biscoe, Jr., Director, Business and Economics, Tennessee; John Watson, Head, Sociology, Mississippi State; Mrs. Ethel Vatter, Assistant Coordinator, Research, Home Economics, Cornell; William S. Coburn, Field Coordinator, EDA, U. S. Department of Commerce; Ralph Widner, Chief Appalachian Regional Commission, Washington; Mrs. Anita Steiner, Gate City, Virginia.

Session No. 3: Carl W. Allen, acting for Wilson E. Schmidt, Head, Economics, VPI, discussion leader; Carl Shelton, Jr., Mining Engineering, VPI, recorder; N. W. Conner, Acting Dean for Research, North Carolina State; G. Howard Phillips, Professor, Rural Sociology, Ohio State; James Ranson, Chief of Research, Appalachian Research Laboratory; William H. Smith, Jr., Assistant Director, Family Youth and Community Development, Pennsylvania State; Richard P. Wakefield, NIMH; Earl W. Morris, Assistant Professor, Housing and Design, Cornell; James R. Washburn, Professor, Architecture, Clemson.

Session No. 4: Charles E. Burchard, Dean, Architecture, VPI, discussion leader; Robert K. Coe, Business Administration, VPI, recorder; Morris Shepard, Community Development, Pennsylvania State; Kathryn Powell, Professor, Home Economics, Winthrop College; C. C. Cleland, Associate Professor, Rural Sociology, Tennessee; Roman Q. Aquizap, Projects Coordinator, Human Resources and Education, West Virginia; James Boyd, Political Science, Southern Alabama; Richard B. Drake, Professor, History and Political Science, Berea; Robert E. Reiman, Director, Office of Research and Development, Appalachian State; Howard F. Robinson, Director, Research N. C. A & T; Irvin H. Bromall, Government, Ohio University; Leland B. Tate, Sociology VPI; Paul Jehlik, Acting Director, CRS, USDA; Charles L. Bertram, Supervisor of Research, Virginia State Department of Education; Charles King, President, Community College, Richlands, Virginia.

D

LEADERS (CHAIRMAN, RECORDER, AND REACTOR) IN UNIDISCIPLINARY SESSIONS

Group 1: George E. Russell, Director, Resources Development, VPI, discussion leader and Leland B. Tate, Sociology, VPI, with Beatrice

Meaney, Haysi, Va. as reactor. *Group 2*: Martin Schnitzer acting for H. H. Mitchell, Dean, College of Business, VPI, discussion leader, and Donald C. Darnton, College of Business, VPI, recorder with Archa Vaughan, Pulaski, Va., as reactor. *Group 3*: Thomas Snider acting for J. E. Martin, Agricultural Economics, discussion leader, and W. L. Gibson, Jr., Agricultural Economics, recorder, with Allen R. Michelson, Charlottesville, Va. as reactor. *Group 4*: Jeffrey Stewart Jr. acting for Rufus Beamer, Head, Education, VPI, discussion leader, and Walter H. Shell, Education, VPI, recorder, with Mrs. Elizabeth Pointer, Giles County, Va. as reactor. *Group 5*: Bernard Sabaroff, Architecture, VPI, discussion leader and John Dickey, Architecture, VPI, recorder, with C. P. Brumfield, Jr., Roanoke, Va. as reactor.

E

CONFERENCE SPONSORING COMMITTEE

S. J. Kaplan, Associate Dean, Research Division, VPI, General Chairman.

D. E. Lindstrom, Visiting Professor, Research Division and Department of Sociology, Chairman of Sponsoring Committee.

Richard Yearwood,* Architecture and Urban Regional Studies, Deputy Chairman.

Rose Sabaroff, Education, Deputy Chairman.

G. H. Beyer, Engineering.

Ralph G. Kline, Agricultural Economics.

James E. Montgomery, Home Economics.

George E. Russell, Extension Division.

Bernard J. Sabaroff, Architecture and Urban Regional Studies.

Martin Schnitzer, Business and Economics.

Leland B. Tate, Arts and Sciences.

Maynard Heckel, Continuing Education Center.

*J. D. Richardson, College of Business, replaced Dr. Yearwood when the latter left locale during the last month preceding the Conference.

APPENDIX II

THE ESSENCE OF RESEARCH RELATING TO POVERTY: FROM ABSTRACTS*

CONTENTS

- A. IMPROVING ECONOMIC CONDITIONS
 - 1. Studies providing a frame of reference, causes for and/or directions for social and economic improvement
 - 2. Studies relating to economic and social change, human and physical resources, and development
 - 3. Improving agricultural practices
- B. IMPROVING EDUCATION AND TRAINING
 - 1. The family situation in the education of the child
 - 2. Occupation and growth aspirations
 - 3. Child center development and youth training projects
- C. IMPROVING HEALTH PROTECTION AND CARE
 - 1. Studies of the situation in poverty areas
 - 2. Projects relating to health services
- D. IMPROVING HOUSING AND COMMUNITY SERVICES AND FACILITIES
 - 1. Housing
 - 2. Leadership and center development, adult and community education
- E. ABSTRACTS RELATING TO INTRAINSTITUTIONAL RESEARCH

BRIEFS

The abstracts used at the conference have been briefed for quick review. Those wishing copies of the studies should write directly to

*Copies of the *Compilation of Abstracts* may be secured from the Research Division, VPI, Blacksburg, Va. 24061.

the authors, whose names and institutions are given herewith. The addresses of the persons named are to be found in Appendix I. The abstracts briefed include those used in the conference as well as some sent in by those who planned to come but could not. Only names and titles appear here for papers recorded in Chapter 4.

More than 100 abstracts were submitted; they were divided into five parts to comply with the topical assignments given to the six interdisciplinary groups. By far most of the researches were on, (A) "What can be done to improve economic conditions though agricultural and industrial development, capital inputs, changes in welfare systems and changes in the tax system?" Almost as numerous were abstracts on, (B) "What can be done to improve education and training: adult basic education, elementary and secondary education, vocational and technical education?" Not so many were submitted on, (C) "What can be done to improve housing and community services and facilities?" Only a few were submitted on the topic, (D) "What can be done to improve health protection and care?" The last section (E) related to intrainstitutional research.

It must be recognized that the reports on research were indicative of what work was being done; but they cannot be said to be a comprehensive picture of what universities and colleges are doing on research in poverty and development in the Appalachian Region. The following briefing therefore gives a cross-section view of what is going on, and of some results that are coming out in these researches. As important is the fact, previously stated by Vice-President Brandt, that there is need for a means of collating research results so that a total impact can be made on the problems of poverty and on development programs related to their solution.

A

IMPROVING ECONOMIC CONDITIONS¹

As will be seen from the following, many of the projects are descriptive, providing a frame of reference or indicating directions for social and economic action.

1. *Studies providing a frame of reference, causes, and/or directions for social and economic improvement.*

¹Note: in the following report, only last names of researchers and their institutions will be given. Identifications will be found in Appendix I.

Dow (Emory and Henry) examined *attitudinal profiles that appear representative of people in certain contrasting communities of Southwest Virginia*, in which there were a polarization of political attitudes, extreme radical and conservative attitudes of religious outlook among low-status people, and a center-of-the-scale attitude on the part of high-status and a radical orientation among low-status people.

Dillman and McElvann (Clemson) are studying *the characteristics and extent of rural poverty* in a ten-county area of South Carolina, the results of which should be available sometime during 1968.

John and Madden (Pennsylvania State) found that *low income households in five counties* have low incomes because of a lack of education, of occupational skills, limited job experience, age limitation and high evidence of physical and mental difficulties. Low-income farm families at the poverty line level need at least 85 percent as much income as comparable size and type non-farm families.

McKee and White (Mississippi State) are studying the *conditions affecting low-income populations*; (1) occupational education and manpower development, are not "conditions" (2) behavioral studies in conservation and natural resources development, and (3) community organization and regional planning.

McCann (North Carolina State) uses as a focus of his study *the adjustment (social and economic) of low-income rural people*, taking into account families, individuals and the society of which they are a part: factors associated with adjustment (attitudes, level of living, decision-making and social participation, and adjustment as it relates to socio-economic regions of the South and to categories of people living in these areas: homemakers, heads, whites, non-whites, retirees, etc.).

Miller (Georgia) made an assessment of *existing social and economic factors and their effects on resource development and social change*.

Blume and Tate (Virginia) used U. S. Census data to *identify low-ranking counties as the basis of several indices*. They show that counties of relative poverty have also low levels of education, a tendency to cluster, with many living in Southwest Virginia and the south central portions of the state, and in the Tidewater area. The Piedmont area had relatively more low-ranking counties than the Appalachian or the Tidewater areas.

Richards (Maryland) studied the *persistence of change in racial prejudice among low-income whites*. It was found that, while white

residents had made a positive accomodation to desegregation, effective racial de-segregation as an out-growth of their attitude was less apparent.

Stewart (Ohio State, as reported herewith by Phillips) described and classified *rural families of Southeast Ohio to indicate reasons for low incomes* (the results have been reported in Bulletin 886 of the Ohio Agricultural and Research Center at Wooster). Only a third of 469 rural low-income families are entirely dependent on agriculture, off-farm employment being common to two-thirds. Wage rates were lower among farmers than non-farmers; earnings from off-farm employment increased as the level of education increased. Nine-tenths of the families with less than \$1,000 income (in 1957) were either small-scale farmers or retired rural residents. Over half the small-scale farmers were at or near retirement age. Of those with less than \$1,000 net income, 43 percent were retired or semi-retired and had little employable labor in their families. Half were underemployed or had low-paying jobs or were working farms yielding little net income. Only 7 percent were disabled. Over three-fourths of the farms had less than \$2,000 sales in 1956. Underemployment of labor was most marked among farm families. Research is needed to identify alternatives for adjustment of small farmers.

Leveck, Sollie and Leonard (Mississippi State) are making a *structural analysis of poverty* in selected areas of the state, to determine the relationship of the rural social structure to certain social, personal and economic characteristics of poverty. There will be included 450 schedules, or 150 in each of the three counties selected for study, distributed between white and Negro families.

Dillon (Maryland) reports that his associate, Aaron, will publish a report on an inquiry on *costs of inadequate governmental provision for retirement income*. He holds that social security benefits should be financed by methods that are most equitable and most conducive to economic growth and efficiency. Minimum benefits that will keep beneficiaries out of poverty should be guaranteed. They should be on a par with pre-retirement income and not depend on past payroll taxes.

Mathews (Pennsylvania State) has been studying the causes of bankruptcies.

Bailey and Mize (Georgia) are engaged in a study on *economic provisions made by rural families for old age*, the aims being: to find out what are the economic and social goals and provisions for old age

made by these families; and to analyze the interrelationships among present economic and social conditions, goals and provisions for old age.

Cooper (Georgia) has made an evaluation of *poverty programs dealing with design and methodological requirements, etc.*

A study by Richards (Maryland) was of *social work roles in public assistance*: behavioral styles congruent with the requirements of the role and organization. There was evidence of predispositions toward some aspects of the social worker's behavioral style, but these were not potent forces in determining behavioral styles of workers occupying different social roles in public assistance. Differences shown between workers and social work students, however, helped in establishing baselines for further development of a hypothesis for further studies.

Richards (Maryland) made another study of *attitudes of social workers towards public assistance clients*, comparing professional with non-professional workers. The results did not prove helpful in providing information on effects of professional training on workers' attitudes. Richards also studied stresses leading to financial dependency and found that persons with interpersonal problems had a lower self-concept and were more subject to become victims of stress-making situations.

Dunkelberger (Alabama) is studying *factors influencing human resource development* and decision-making of people in various stages of the life cycle: to analyze changes in behavior due to mobility in a given period of time.

Tate (VPI) studied the *people of Virginia's Appalachian region* and concluded the people are mainly native white who live mostly in rural non-farm houses located in town, country and suburban areas. They are not mainly farmers, nor mountaineers, nor in the majority the poor and depressed, but thousands are in relative poverty, and there are almost unbelievable variations in the region as regards education of adults, income, etc. An earlier study by Tate in one community (Lebanon) of the region revealed a wide difference in the characteristics of contiguous residential areas, such as a small town and its adjoining or outlying neighborhoods. Small courthouse towns are so much focal points for established community activities that it could be reasonable and wise for new industries to locate in or near them.

Stanaland (Auburn) is carrying on *economic cost-benefit planning studies and studies on how to break the pattern of poverty inheritance*, seeking data on the investment return realized from a family planning-

birth control facility, the justification of which is to encourage such expenditures.

2. *Studies relating to economic and social change, human and physical resources, and development.*

Research by Vallery (Alabama) to *identify growth potential and the relation of social overhead investment to growth potential* concludes that the lack of public facilities is not a detriment to the location of industry in the more viable areas. There is, however, need for further research, e.g., to determine the extent to which the actual criteria, used by state and local governments in making public investment decisions, are based on the objectives of economic development.

Wallis (Georgia) examined *Union County's economic and social potential for a planned development program*, in which he questions the validity of commonly used statistical measures of depression and backwardness of such regions.

Dunkelberger (Auburn) is studying *two facets of the low-income problem relating to human resources and family development*: one emphasizing the aspirations and expectations of rural and small town youth, paying special attention to socio-economic differences in family background and perceived barriers to goal achievement; and the other with emphasis on occupational and residential changes among heads and householders in established rural homes. Particular attention is being given to potentials for change and improvement among families and the attitudinal correlates related to change.

Frey, John, Copp and Bergstrom (Pennsylvania State) are working to *identify present and potential strength and limitations in the economics within the Appalachian region*, to evaluate alternative patterns of multiple use for physical and human resources, identify and appraise possible recreational development, develop and extend information for private sources of non-farm resources relative to optional development, explore possible forest products industries, appraise alternative means of providing public services, and gather information on fish and wildlife resources.

Brown and Wise (Georgia) are studying to determine *the physical and human resources in a 10-county area*, evaluate alternatives for these resources, and determine how findings can be used to stimulate development.

Tarver (Georgia) in his *study of internal migration*, using 1950 and 1960 data, presents extensive analysis by age, sex and color of skin

for all counties, state economic areas and other areas in the United States. Particular attention is given to data for Appalachian counties and other areas with a high incidence of poverty.

Larson (Cornell) is working on a *study of migratory farm labor in New York*, data having been collected in the years 1957 to 1959, with statistical analysis being made on employment patterns, prospective farm labor problems, means of finding employment, wage rates and earnings, effects of living in labor camps, participation of workers in community life and supervisory practices for differing migratory labor situations.

Morris, Kopald and Samdani (Cornell) are making a *study of former migratory workers*—90 adult male members of households of rural and semi-rural Negroes born in the South and now living in New York State. The survey is being conducted in 11 small semi-rural communities or settlements in an upstate New York county. They have made, also, preliminary analysis of interviews with 200 adults born in the South and now living in New York State, primarily former migratory workers.

Walrath (ERS, USDA) *studied increases and decreases in employment by occupation* in Jackson County, West Virginia and found that between 1950 and 1960 the number of persons employed in agriculture declined by 75 percent, whereas the number in manufacturing increased by 350 percent. There was new industrial plant growth of other economic activities which created new employment opportunities, but the rate of growth has not been maintained at a high enough level to absorb young people as they move into the labor market, nor has the type of employment been of a type to provide opportunities for the older workers. Therefore, there is need for a higher rate of continuous economic growth to provide additional jobs for youth entering the labor market.

Walrath (ERS, USDA, located at VPI) is also working in a three-county area in Southwest Virginia and in West Virginia on *transfer in ownership of farm land*.

Darnton, Thompson, Blume, Tate, Manning, Davis, Marks, Westermann and others (VPI) worked as a team on *the growth potential in Southwest Virginia*. Their work concludes that the seven top counties of the region should experience a growth in employment and income in the next decade. The area has an untapped labor supply, a low proportion of income in the labor force outside the home, an abundance of coal, a fair supply of growing timber, sufficient water and facilities for small industries, residents which employers consider easy to train,

fairly stable workers, facilities for training more skilled workers, some tourist attractions, some opportunities for small business expansion, and some opportunities for improvement of a relatively declining agriculture.

Evans (West Virginia) is making studies of *plans for economic development* in three counties in the Upper South Branch Valley, analyzing the present economy; determining optimum techniques of production in existing industries and with existing resources; determining effects on employment and income from optimum use of resources; determining series of combinations of manufacturing, agricultural, forestry and other activity, and which would contribute to economic development; the amounts of capital required and outside financing needed to meet needs of proposed plans; and effects on employment and income resulting from the new systems, including human skills needed in various enterprises.

Evans (reported by Philipps of Ohio) made an *assessment of commuting for employment* from the Appalachian region, stating that most commuting is from satellite to core communities, with no relation between distance traveled and education, occupation, age or income. Commuters' attitudes toward commuting are a willingness to commute to work at satisfactory wage rates, costs being absorbed in the family income budget. Chief reasons for commuting were lack of jobs in the home community where homes are owned. Few commuters are laborers; most are from the middle class with a higher level of schooling than non-commuters. Research is needed to determine if commuting would be a realistic alternative for the unemployed poor.

Lewis and Knipe (East Tennessee) are studying the *impact of changes in coal mining on the miners and their families*. The study was funded by the Bureau of Mines. Results are forthcoming.

Maloney (Louisville University) makes a proposal, as a result of his studies, of a *rural-urban relocation system project to assist the relocation of potential migrants to middle-size urban regions*. It is designed to assist those leaving rather than to encourage migration. The primary thrust would be vocational training for jobs and job advancement, including adult supplementary education and compensatory education for children and aid to ease personal and social adjustment related to church-community relations, consumer education and housing. It is hoped a permanent organization can be established to coordinate demonstration project activities of migrant identification, job identification and service delivery, both in the selected rural areas and the greater Louisville area.

Smith, Ansel and Coughenour (Kentucky) are studying *public policies and institutions for facilitating economic growth*. Objectives are to find out the effect of public expenditures for education on public expenditures required for maintenance of minimum social and welfare services; the private and public costs of providing education, utility services and other services for people in isolated or inaccessible non-farm settlements compared with costs of similar services in central non-farm locations, and effects of each on personal productivity; the individual's social and economic costs and returns for migrating from isolated areas, and the frequency of unemployment of migrants with differing social, economic and educational assets; the potential effects of qualified professional arrangement on the productivity of forest land under commercial operation. They plan to explore and evaluate possible alternative systems of organization and tenure for commercial forestry on lands once under small-scale private ownership.

Dillon (Maryland) is examining *the regional approach to development of depressed areas* containing a higher percentage of unemployed than the national average. It is assumed that the Appalachian Regional Commission can produce better and more comprehensive planning in building highways, providing vocational education, public works, health and recreation than the old system of grants-in-aid still used in non-regional areas. This can be effected better through local development districts (multi-county) by pooling community leadership and resources that have been so far stifled by the dead hand of inept county government.

Related to this effort, Dillon reports his colleague, Harris, has developed *a regional forecasting model* which now makes available county projections of employment by industry, population and income for 1975. Some findings are that very large and very small counties are expected to have slow rates of growth in employment, while counties in the 100,000 to 500,000 group have on the average high rates of growth; that present-day SMSA's will need either a net out-migration or a faster rate of employment to achieve full employment; and that the natural rate of increase in population of SMSA's is too fast to permit full employment given current employment projections.

Boyle (VPI) is engaged in *the measurement of the local impact of mergers of industrial firms*, with special emphasis on the economic effects of plant closings following acquisition of a company located in a particular community. Such can be beneficial, or adverse. The present study is one of three studies dealing with the local impact of merger activity. A second is about using Section 7 of the Clayton Act to fore-

stall the further flight of poorly trained industrial workers to urban areas, and the third looks at losses or gains of a subsidy program to retain manufacturing facilities in rural or small urban areas. One finding from the first study was that communities with slow population growth, and relatively small communities, bear most of the impact of closings due to mergers.

Walrath (ERS, USDA at VPI) in *evaluating investment opportunities*, states, "Proper analysis of investment opportunities can encourage individuals to make investments that bring about economic growth." An Agricultural Handbook has been prepared (No. 349, ERS, USDA) to provide the business manager with the essential tools he needs to use in analyzing investment opportunities.

Grasty (VPI) has made *an analysis of the use of investment credit to reduce unemployment in rural areas*.

3. *Improving agricultural practices and studying possibilities for improving forest and lumber industries*

Moschler, Shear and Lillard (VPI) are studying *the no-tillage method of crop production*.

James Moore (VPI) has been carrying on work on what is called *the Joint VPI-TVA Rapid Adjustment Farm Program*. It is a demonstration program designed to show the most profitable use for a given set of farm resources through the selection of a cooperating farmer having problems similar to those of others in the area. This farm is linear programmed to find the most profitable farm plan, and the cooperator is asked to agree to follow this program for four years under the supervision of Extension specialists. More research is needed, however, to try to find more profitable crop and livestock enterprises, especially for small farms, and to discover suitable marketing systems. (Note: the problem of getting low-income, poverty-ridden farmers in the area to risk their present security in taking on the new system is also a very real social problem requiring knowledge of how to develop effective rapport with these farmers, and provide motivation to cooperate.)

Link, Kroontje, Henderson and Chappel (VPI) are studying *how to improve burley tobacco culture*.

Carter and Copenhaver (VPI) are working on *methods of intensive lamb production*.

Blaser, Johnson and McLaugherty (VPI) are working on *bluegrass pastures for Southwest Virginia*.

Kline (VPI cooperating with Givan and Little, FDEP, ERS, USDA) in an economic appraisal of opportunities for adjustment on burley tobacco farms in Southwest Virginia, will provide farmers information to help achieve the most profitable use of their resources.

Davis (VPI) is making a comprehensive study of the Southern Appalachian hardwood lumber industry, including attention to all production and marketing activities relating to green lumber, cost of drying rough dimension manufacture, using a mail questionnaire to all firms in the study region. Particular emphasis is given to the economic possibilities of establishing a dimension stock industry in Appalachia.

Lowry (Washington & Lee) has examined critically possibilities for the development of forested land in the Appalachian region as influenced by the Appalachian Regional Development Act of 1965. The timber resource is made up mostly of low-quality hardwoods chiefly of pulpwood dimensions. Also, forest production is related to residual land use. Therefore, the forces of the market economy contribute little more than the perpetuation of the existing state of affairs. What is needed is a basic restructuring of the timber economy, with the development of policies and programs to upgrade the timber resources.

Chappell, Hendrick and Sterrett (VPI) are working on the control of thistles and woody plants and unwanted plants in forests of Virginia, since a large part of Southwest Virginia is dependent upon the forest crop and on pastures. The research being carried on hopefully will determine the most effective techniques and best types of herbicides in controlling unwanted plant growth, and release selected crop trees or convert poor hardwood growth to much more profitable growth, including that for Christmas trees.

B

IMPROVING EDUCATION AND TRAINING

1. THE FAMILY SITUATION IN THE EDUCATION OF THE CHILD

Maloch (Ohio State) is making a study of factors affecting living patterns of disadvantaged families, giving special emphasis to resource allocation and value orientation.

Hutchinson and Taylor (West Virginia) are making an analysis of inter-generational changes taking place on the value hierarchies of Southern Appalachian families. The value systems relate to religion,

family, friendship, education, achievement, country life, recreation, material comforts and work. It was found parents ranked family, country life and material comfort higher than did youth; the youth ranked achievement and recreation higher than did parents. Work was ranked higher by fathers and sons; friendship was ranked lower by fathers than by other groups; and education was ranked higher by sons than by daughters. No differences were found in the value placed on religion.

Hooper (West Virginia) is engaged in the initial phase of a pre-school curriculum project to *assess the behavioral characteristics of children three to six years of age.*

Richards (Maryland) studied *moral values and attitudes of families that tended to neglect their children.* He found no difference in moral values and childrearing attitudes between these families and those of similar social status not getting public assistance. Large size, low income, and high mobility are factors likely to contribute to neglect. Were stress factors eliminated it is quite probable that the tendency for child neglect would be reduced or eliminated.

Polansky (Georgia) is engaged in a five-year program of studies funded by the U. S. Children's Bureau, concerned primarily with *the identification of mother-child pairs in instances of marginal child-caring and/or child neglect.* The hypothesis is that the level of child-caring is directly related to the general maturity of the maternal personality. Another study has shown a relation between felt powerlessness and lower socioeconomic status among white adolescents; Negro youngsters score high on powerlessness regardless of status. Two other studies, one contrasting rural and urban public health services in how they put dimensions on problems, and the other on the incidence of disease among children, are under way.

Vatter (Cornell) is engaged in finding *what are the factors affecting different academic accomplishments of teenagers within the same family.*

Dow (Emory and Henry) studied *data on school dropouts* submitted by school officials in the Virginia Appalachian counties. The most significant factor relating to dropouts was social distance between the world of the parental family and that of the school: lack of parental empathy and actual disparagement of the types of ambitious motivation expected by the school people; the feeling on the part of the school officials that interpersonal attitudes installed at home were remote from the world of values represented by the schools. Factors within the

school—limited scope of course offerings, and inadequately gauged level of effort expectations—played subsidiary roles in creating dropouts. More study is needed in problems related to dropouts, their familial and school environment, as a basis for making changes in both areas.

Feldman (Cornell) is studying *how teenagers are different in their use of the school setting*, whether members of the same family, poor or not, rural or urban. Family living patterns, child rearing patterns, use of community resources, attitudes toward the sibling and the school will be used as bases for making comparisons in differing areas of economic status, academic performance and geographical location.

Richards (Maryland) carried on an *exploratory study on patterns of parental control among low-income families*. It was found that there was no significant difference between the control patterns of Negro mothers on public aid (AFDC) and the patterns of those independent of aid. Both groups, however, are important segments of a single-parent, high-risk, low-income population. The study indicates the need for greater focus on services directed to helping one-parent families with the control of their children's problem behavior.

Vatter and Feldman (Cornell) are studying *problems and preferences for change among teenage children*; to get information about the current status of family functioning and readiness to change for those who are poor, as contrasted with those who are not poor; for those who have an intact family versus those with an absent father; and for those living in three geographic locations. The family living pattern will include attention to food, clothing, shelter, health, personal relationships and use and management of resources.

Tseng, Carter, and Thompson (West Virginia) have studied *achievement motivation and fear of failure as determinants of some vocational behavior of adolescent boys*.

Kohl (Pennsylvania State) is working on a three-year project for *the development of an instructional system in educational policy studies*. The target is the Appalachian region, a poverty area characterized by lack of personnel in this field. The emphasis is to be upon preparing persons in various educational and training institutions for positions in regional laboratories and other units that work with groupings of school systems.

2. OCCUPATIONS AND YOUTH ASPIRATIONS

McKee and White (Mississippi) carried on a series of studies in 1968 relating to *occupational education and manpower development*:

occupational and educational aspirations and expectations of Negro rural male high school seniors in Mississippi delta; vocational education implications of the school dropout situation in Mississippi; a survey of vocational training exposure and aspirations of low-income Negroes in the Mississippi delta; a socio-economic description of low-income Negro heads of households. None of these studies are completed; two are in the manuscript preparation stage.

Schwartzkeller and Brown (Kentucky) are working to determine *the criteria young people use in making career choices* from available alternatives: what are the value conflicts; the youth's own occupational value orientations as to choice of a career; how his socio-cultural experiences and situational circumstances affect his career choice; and what is being done about career planning among youth in differing cultural and regional situations.

Clear and Bertram (Virginia State Department of Education) have analyzed, in 1967, *educational and occupational aspirations of about 50,000 public high school seniors in the state*, representing approximately 95 percent of the public and private high school senior population in the state. Analyses made so far indicate that a more comprehensive analysis is needed of data from all youth in order that information of a generalized nature might be obtained about reasons why seniors go to college; and reasons why certain types of colleges are selected and certain vocations are selected by youth not choosing to continue their formal education.

Powell (Winthrop College) is studying *educational and vocational goals of urban youth in South Carolina*.

Coleman (Kentucky) is studying *the influences on occupational goals of youth from three sub-cultures in seven states of the South*, using as objects of study 5th and 6th grade children and their mothers: their achievement, motivation, social class, education, communication, social participation, child training, family structure, etc.; all will be measured. Later on experimental study will be carried on with a sub-sample of the youth and mothers in each culture to determine the effectiveness of experimental programs and techniques designed to increase career planning and awareness on the part of junior high school youth (the 5th and 6th graders two years later) by working through their mothers who will have been exposed to a planned series of group meetings. This effect on the mothers and children will later be measured.

Caudle (Alabama) is also studying *influences of occupational goals of young people from three sub-cultures of the South* so as to find out

the relations between family characteristics and occupational goals of youth; mothers' choice of goals for youth and the effectiveness of methods of getting mothers to make changes in the information they use and in their attitudes.

Kelly (Georgia) is working in five states of the South to find out *the occupational and social aspirations of youth* and establish statistical relationships between these and decision-making processes and the development and mobility of the youth.

3. CHILD CENTER DEVELOPMENT AND YOUTH TRAINING PROJECTS

John (Extension Service, West Virginia) has carried on a *pilot project in pre-school experience centers*, a part of which is to develop techniques of reaching low-income, rural non-farm families. Beginning with systematic home visits one to six days ahead of the beginning of an activity, the pre-school centers were set up involving the total family. Mothers helped the professional staff and fathers helped to secure and make equipment. Certain principles became evident as essential to reaching the disadvantaged: working in a non-threatening atmosphere in getting facilities as well as providing treatment, placing buildings within walking distance, avoiding bad weather, securing equipment locally and using children as a focal point. A minimum of expenditure was made for securing expendable items, transportation was solicited, with nine out of ten families responding (with no transportation, attendance was sporadic). Results after two years showed children in the program were ahead of their counterparts not in the program.

Aquizap (West Virginia) describes *the design and preliminary results of child development centers*.

Turner (VPI) made an evaluation of *the 1966 Upward Bound summer program at VPI*. He found that some changes in social behavior did occur among the young people who took part, that there was an appreciable change in extra-curricular high school participation and in dating.

A study by Richards (Maryland) related to *the selection of VISTA volunteers to predict future performance*, based on the hypothesis that a relationship exists between evaluators' judgment and scores on instruments used to evaluate applicants. Preliminary findings indicate that evaluators have certain preconceived ideas concerning various age and educational groups, as well as predispositions toward specific attitudes and values. Further research is needed to confirm or deny these findings.

Richards also investigated *the effects of prior deprivation as it relates to MDTA graduate trainees' experience in the labor market following training*. It was found that trainees with high deprivation scores had substantially lower success rate than trainees who were not considered to be deprived; that trainees below 21 or over 35 years of age had a lower success rate than trainees in the 21 to 35 age group; that success was related to length of previous employment, years actually employed and tenure in a given job; and that there was little difference among success rates of non-high school graduates regardless of grade level. The influential variable is high school graduate status.

C

IMPROVING HEALTH PROTECTION AND CARE

1. STUDIES OF THE SITUATION IN POVERTY AREAS

Mitchell and Finley (Ohio) reported on a study of *trends in physician supply in Ohio's Appalachia in the period 1956-1965*, focusing on full-time general practitioners and specialists in 28 counties. Results showed a decline in supply up to 1960, then a slight increase because of an increase of osteopathic physicians. The ratio of persons per physician increased over the entire period, but the number of physicians from foreign countries more than doubled. More physicians will be needed as Medicare demands increase. New arrangements will be needed for meeting the health needs of a sizeable portion of the nation's population living some distance from metropolitan areas, assuming the Ohio data is indicative of the national situation.

Coughenour (Kentucky) has set up *a study of consumer buying behavior and decisions about foods*, using a regional probability sample of states, six in Appalachia. Objectives are to study selected categories of homemakers of individual family members to determine the extent that attitudes and other behavior may affect food decisions, food buying habits and subsequent food consumption; and the responses of these people to education and action programs under certain controlled situations designed to change attitudes and behavior relating to purchase and use of food.

Ritchey (VPI) is working on *interrelationships of minerals and other nutrients in diets of low-income groups*, taking inputs from investigators of five Southern states. Attention was focused upon the response of growing children to various dietary regimes. Normal children, fed the

typical diets of low-income families, did not do well. A diet of 48 grams of protein daily for 8-year-old girls, for example, provided for good growth; but when reduced to 25 grams resulted in inadequate growth. Such a diet, supplemented by amino acid, would probably support an adequate rate of growth. Further research is needed on the response of growing children to poor diets, and correlation of response to previous diets should be further investigated.

Romans and Trice (Cornell) made a review of poverty and schizophrenia, which showed schizophrenia is not necessarily inversely correlated with social class levels, but gave evidence that it tends to be heavily lodged in the bottom social class. Pathological socialization in early childhood and mechanisms in social life in early adulthood tend to inconsistently reward and punish social action. This results in a basically unstructured set of reality relationships. These factors are detrimental to the formation of a stable and consistent self-concept, an essential basis for reality relationships. Evidences of pathological socialization can be found, not only in the bottom social class, but among minority groups; this is true also with respect to patterns of goal attainment behavior and social relationship among those in the bottom class and minority groups. Possible approaches are: working for occupational and economic stability, and a revamping of the early education of children, for those in both the bottom social class and minority groups.

2. PROJECTS RELATING TO HEALTH SERVICES

John (Extension Service, West Virginia) is carrying on a series of pilot projects in medical evaluation, health education, medical services, recreation and day camps. In the medical evaluation program a team of 14 persons made complete medical and dental examinations in three study communities. The results were reported back so that the people found to be needing attention could make visits to family doctors. Only one case refused to submit to medical care. An abnormally high incidence of cervical cancer and an extremely high parasite infestation was found. No symptoms of poor nutrition were found except in areas of parasite infestation. Based on the medical examination project, specific problem areas were defined and a series of health talks and modified home nursing classes were initiated, preceded by home visits by a registered nurse. In the series 37 topics were presented. Classes, it was found, started small and grew in number attending. Those attending had a far greater previous knowledge of correct information than did those not in attendance. Some change did take place: hollow-dwellers can learn, if the atmosphere is comfortable, the instructor is a person genuinely interested in them, and the proper teaching methods are used.

A project in medical service has also been developed. A pap testing clinic (for detecting cervical cancer) was established in an isolated area. Of 62 women taking part in the clinic, ten needed further treatment. Placing the clinic in a familiar setting made possible effectively reaching all these people; all ten of the women who did received the medical care they needed. Training had to start in the hollow in familiar surroundings before the rewards of further diagnostic care could be reaped.

The project in recreation and day camps was made available to young people in the test areas found not to be involved in 4-H and other traditional, more structured, camping and recreation activities. The programs were designed to provide recreational, social and cultural activities normally not available to these disadvantaged children: classes in cooking, archery, rhythm dancing, folk games, good grooming, safety, nature, various types of art and craft activities and organized athletic competition. Adults as well as children were involved. Such programs can be conducted in the community with a minimum of facilities and equipment. The programs should be flexible and provide specific activities to interest children of diverse desires and abilities. Results showed a significant improvement in social skills: creativity and flexibility have been increasingly manifested by community young people; a greater tolerance for differences in others has become apparent; participants have developed a more meaningful recognition of the value of group goals; and, in general, the program has been instrumental in improving both the physical and psychological equipment which community youth must use in facing our complex culture.

Kunin and Dreifress (University of Virginia) are working with the Virginia State Health Department to develop *an effective program in medical care in Southwest Virginia*. The plan includes a study of medical care problems, setting up referral clinics in health centers, improving post-graduate medical education in the area, providing aid in teaching of paramedical personnel at Clinch Valley College, and helping design the best system of medical care possible for the area: this is to be done in collaboration with local physicians, business leaders, educators and others. A survey of attitudes of physicians and business leaders toward the program is under way, and results will be placed in the hands of the people who have been interviewed.

D

IMPROVING HOUSING AND COMMUNITY SERVICES AND FACILITIES

1. HOUSING

Montgomery (VPI) outlines the purposes of a *projective interinstitutional research in housing*, the purposes of which are: to develop and evaluate concepts of low-income housing, to construct and evaluate prototypes of houses and components, and to develop a retrieval system for housing information. Involved will be agricultural and civil engineers, architects, economists, home economists, and sociologists. There will be set up concept and evaluation teams and a housing information system. Five experiment stations in as many states will take part in cooperation with USDA Agricultural and Forestry research services. The research will be focused on the housing of Appalachian and other low-income families of the South.

Washburn (Clemson) shows how the above described project will operate in South Carolina. There will be a *five-year program for constructing prototype houses*. Preliminary studies will center on indigenous living patterns, building form types, location and financing. The four phases will culminate in the marketing of revised units in areas where occupancy reaction can be observed.

Philson (VPI) is concentrating on the *study of electric space heating for homes*. The study has already been carried on with 750 families in various parts of Virginia. It is stated that this method of heating should be evaluated for use in low-cost housing of the mobile type.

2. LEADERSHIP AND CENTER DEVELOPMENT, ADULT AND COMMUNITY EDUCATION

Hall (North Carolina State) is studying *the effect of adult basic education on occupational adjustment and acculturation of the low literate adult*. This study is of a five-year duration and no findings have been reported to date.

Jenkins (Western Kentucky University) reported on a project to *explore background factors influencing programs of Christian education in Appalachia*. A total of 277 persons from 18 Presbyterian churches, drawn at random within Southern Appalachia (including parts of the states of West Virginia, Virginia, Tennessee, Kentucky and North Carolina) were interviewed. Preliminary findings have been reported in a

research bulletin, and a discussion of the respondents' attitudes will appear in *Business and Economic Problems in Appalachia*, Vol 1, Ohio University, summer, 1968. A general report will be issued in the fall of 1968.

The individual is an important factor in any study, and the individual who wields group influence is of special importance in providing community services. McMurtry (VPI) has helped *identify influential individuals in five Appalachian counties*, using the reputational survey technique. The identification of these individuals is important to successful community social action efforts as they exert a strong influence on most community decisions. Programs have been developed, utilizing information on how to find and identify leaders who are helpful if not essential in working on community problems.

Fessler (VPI) has been experimenting for some time in *community education as an approach to solving rural and urban problems*.

John (Extension Service, West Virginia) reports on *demonstration projects to reach the disadvantaged*. Personality and attitude of the professional worker is the single most decisive factor in communicating with the disadvantaged. Personal contact through systematic home visits, and understanding of the language spoken in the hollows, using children as a focal point, carrying on activities in a non-threatening atmosphere and using specific information not available in several subject matter areas, with consideration given to the present leadership structure and an understanding of taboos, religious beliefs, folk lore and marriage partner dominancy are all matters which must be taken into consideration.

These techniques were important, according to John, in community development. At the onset there is little or no sense of community. Distinct social qualities develop in each community. The communication gap between people in the communities and the agencies had to be bridged. Following personal contacts were community meetings and the formation of improvement committees made up of local citizens. These then could communicate with Extension personnel, working in the role of advisors and consultants, in aiding local leaders to identify specific community problems. Solutions to problems were then worked out by bringing in agency representatives. Citizens committees used agency personnel in improving roads, utility services, recreation and health. By organizing around concrete problems, using existing leadership among the poor, which does exist, problems can be solved.

57002

E

ABSTRACTS RELATING TO INTRAINSTITUTIONAL RESEARCH

Jerome Arbarbanel, Director of Institutional Research, *Pikeville College*, Kentucky, reports on the program being developed in his institution; Pikeville College is located in Pike County in Eastern Kentucky. At the present time the college is actively engaged in a program of expansion and development centered around the theme of *Innovations in Higher Education*. As an affiliate of the Union for Research and experimentation in Higher Education, it has been selected to serve as one of several field study centers in a worldwide research program. In addition, the school is involved as the central educational institution in the Pikeville "Model Cities Program" and has worked closely with the elementary and secondary school systems in an effort to improve the overall level of education.

This past spring Pikeville College was awarded a Title III federal grant to aid in curriculum development and faculty improvement. Future developments will include a new science facility and an outdoor recreation center.

James O. Wise, University of Georgia, submitted the following on research relating to Appalachian problems and research needs for the area:

Georgia currently has projects dealing with *income distribution, employment and incomes per worker, and resource inventories* (these include minerals, agriculture, agribusiness, forestry, recreation, population and business). Other work is related to local governments, human motivation, and opportunities for development of recreational facilities, agribusiness facilities, and agricultural production.

Results of these studies show that low-wage industries are concentrated in the area, tourism and outdoor recreation offer possibilities for development, and governments should update their organization and functions. Agricultural research shows that vegetable and horticultural specialties and fowl processing offer possibilities for improving area incomes.

Additional research is needed to show the quantities and qualities of the resources in the area, current resource use and alternatives for resource use. Other research is needed on the question of how to improve the quality of existing human and physical resources and on human motivations and values with respect to economic activity and development.

C. L. Cleland, Rural Sociologist, University of Tennessee, submitted a report on poverty research in that institution.

George T. Blume, Extension Sociologist, VPI, made a survey on *attitudes in the University toward interdepartmental cooperation*:

The purpose of the investigation conducted by a sub-committee of the Department of Sociology was to find out the attitude toward, and the degree of willingness of other departments to engage in, interdisciplinary research if it was funded and required sociologically related information and interpretation.

A short questionnaire was prepared and sent to all campus department heads. Of the total 42 sent, 33 were returned with two of the 33 qualifying their answers, which are excluded from the following analysis.

Generally speaking, department heads agreed that sociology had "much" or "some" in common with their discipline, said they would be willing to function as members of an interdisciplinary team, and said they would be willing to call in sociologists if the research so directed. Asked to give specific areas of interdisciplinary research possibilities, they gave answers ranging from "Analysis of Social Change" to "Urban Use of Soil" and "Water Pollution Ecology."

One conclusion which may be drawn from the findings is that the relationship of sociology to other disciplines has been accepted. This new-found relationship should result in an expanded interdisciplinary research approach.

William M. Jenkins submitted the following report on poverty research at Western Kentucky University:

Western Kentucky University, located in southern Kentucky between Nashville and Louisville, is surrounded by an area having the characteristics of low average income, low educational level, rural attitudes toward education and social change, and the like. The area is being affected by the rapid growth of the city of Bowling Green. Appalachia (as defined by the federal government) begins within an easy hour's drive. Thus, *research studies being done in the Bowling Green area have relevance to the general area of poverty and to Appalachia*. This abstract will list several of the studies being completed at Western Kentucky University.

A study of rural-urban adjustment of youth residing in the Franklin and Bowling Green area has just been completed by Hart M. Nelsen (Department of Sociology) and Stuart E. Storey (graduate assistant).

From the responses of 245 rural, town, and city boys to the Mooney Check List, the relative personality adjustments were investigated.

Several studies presently are being completed by the Department of Government. Perhaps typical of these studies is a voter registration and attitudes investigation being conducted by Thomas Madron. His study includes a comparison of Negro-white voting patterns and attitudes.

Attitudes of deprived and nondeprived youth toward music are being studied by Thomas Watson (Department of Music). His findings indicate that while nondeprived youth have a more positive attitude toward music, all youth have a positive attitude toward music, all youth having access to phonographs and radios. Thus it is an attitude that is associated with listening patterns, not access to equipment. Most youth had a rather negative attitude toward classical music.

Crime and patterns of delinquency are being studied by Robert Whitten (Sociology), who has been gathering data from court records and other sources in Bowling Green. Henry N. Hardin, Associate Dean for Academic Services, and Hart M. Nelsen (Sociology) have developed a scale to identify the basic attitude of Appalachians toward education; they are investigating the correlates of a positive attitude toward education. The Appalachian Research Project includes the general study of attitudes held by Presbyterians in Appalachia toward education, social change, and religion.

267/268

INDEX

NOTE: Many entries refer to studies of subjects mentioned, or to suggestions for studies, and not to factual information or recommendations on the subjects.

- Agriculture
 - Enterprise mix68
 - Farm size68
 - Grazing66
 - Hatch Act, research financed by183
 - Interdisciplinary group session recommendations for115 ff.
 - Land development62
 - Land ownership72 ff.
 - Livestock62, 63, 66
 - No-tillage method63 ff.
 - Recommendations by unidisciplinary group sessions150, 151
 - Sheep raising66, 67
 - Timber development117
 - Tobacco67
 - Trial acre project53
- Appalachia
 - Adaptation to deprivation99
 - Administrator-researcher conflict105-107
 - Attitudes not favorable to economic activity44
 - Comparison with other regions52
 - Courthouse towns249
 - Division into smaller units134
 - Economic improvement, recommendations for193, 194
 - Exchange system101
 - Gap between poor and power structure, need to bridge134
 - Genetic effects, poverty pockets55
 - Intergenerational changes in values91-95
 - Laboratory, as a177
 - Land ownership100
 - Leadership47
 - Level of living102
 - Non-homogenous nature of problems23
 - Sections of164-166
 - Regional Appalachian Research Institute Consortium147
 - Religion48
 - Statistics, misreading of23
 - Subsistence economy100
 - Values of living22
- Appalachian Highlands165, 166
- "Appalachian Institute"167
- Appalachian Public Service Agency196
- Appalachian Regional Commission158-171
- Area development, instructional aids for141
- Bankruptcy, personal
 - Profile of individual bankrupt79
 - Reasons for80
 - Remedies for81
 - Trend77
- Bibliographical material217-231
- Center for Developmental Change141
- Central Appalachia165
- Child Development Centers57
- Child neglect256
- Children
 - Cognitive ability59
 - Eye health, and reading problems125
 - Intelligence82-85
 - Memory powers122
 - Nutrition260, 261
 - Pre-school experience centers259
 - Social behavior60
- Coal mining communities133
- Communicating with the disadvantaged264
- Community action program impact measurement54
 - Race variable in reaction to55
- Community development169
- Community education pilot project95-98
- Community services, abstracts of research263, 264
- Commuting47, 252
- Computer data system205
- Conference
 - Favorable comments on192, 193
 - Format5
 - Interdisciplinary group session participants240-242
 - Interinstitutional group session participants242, 243
 - Leaders, unidisciplinary group sessions243, 244
 - Organization4
 - Participants232-244
 - Purpose3
 - Sponsoring committee244
 - Unfavorable comments on192
- Consumer buying behavior260

Counseling		Health	
Relocation	119	Abstracts of research	260-262
County government officials	187	Alcoholism	125
Courthouse towns, and		Appalachian Regional	
community activities	249	Commission research	168
Data bank	134, 196	Community health	
Department of		resource use	112
Agriculture, U. S.	182-184	Education re community and	
Deprivation		population problems	141
Adaptation to	99	Environmental problems	125
Effects of	59	Family health status	111
Dropouts	47, 256, 257	Physician assistants	200
Economic growth, causes	42	Poor health, factors	125
Economic improvement,		Public health and sanitation	55
abstracts of research	246-255	Recommendations	125-128, 148
Economic (regional) analysis ...	168, 171	Research needed	195
Education		TV network for	
Abstracts of research	255-260	health education	200
Adult	121	Training	126
Appalachian Regional		Health, Education and	
Commission research	168	Welfare, U. S. Dept. of	179, 180
Breaking cycle of poor		Highway System, Interstate	140
motivation	122	Homemaking, use of subpro-	
Drop-outs, identifying	47	fessionals for training in	108
Elementary	122, 124	Housing	
Eye health of children	125	Abstracts of research	263, 264
Geared to disadvantaged	122	Appalachian Regional	
Maximizing resources	123, 194	Commission research	169
Money for, and revenues from		Codes	131, 195
resource development	122	Design	131
Pre-school experience centers	259	Financing	130, 132
Recommendations	151, 152	Heating	263
Research needed	194, 195	Housing industry, and costs	185
"School Phobia"	45	Low-cost housing,	
Secondary	122, 124	development of	145, 146
Structure of public	51	Recommendations ...	129-132, 152, 153
Vocational and		Research needed	195
technical	122, 123, 124, 194	Housing and Urban	
Extension service programs	142, 143	Development, U. S. Dept. of	184-187
Family		Income -- white and non-white	54
Bankruptcy	77 ff.	Industrial development	
Child neglect	256	Fitted to local preference	
Community health		and skills	118
resource use	112	Impact of	49
Consumer buying behavior	260	Investment credit	74 ff.
Financial management	46	Local capital	200
Health status	111	Plant location model	69
Kinship system	100	Recommendations ...	115 ff., 149, 150
Maternal health, relation to		Research needed	193
family solidarity	109-111	Service industries	118
Strength of various types of	49	Institute for	
Federal agency roles	175-189	Research on Poverty	31
Findings (recommendations)		Intelligence, children	59
highlights	9-17	Interdisciplinary Groups,	
Genetic effects, poverty		summary report	191-196
pockets	55	Interinstitutional	
Hatch Act payments	182, 183	cooperation	18-20, 135-138
		Interinstitutional research	
		in progress	135, 138-147

Investment Credit	74 ff.	Ecology of	58
Intrainstitutional research, abstracts on	265-267	Effects of	190, 191
Labor		How to break pattern of poverty inheritance	249, 250
Migration	116	Schizophrenia, and	261
Mobility	50	Symptoms of	191
Mining	117	Poverty programs—evaluation	103
Relocation	116	Power structure	134
Tax credit for use of	77	President's Advisory Commission on Rural Poverty	3
Training	116	Proceedings format	8
Land ownership	72 ff., 100	Publications, from Appalachian Regional Commission	215, 216
Leadership	47, 57	Publications, displayed at conference	217-229
Legal services for poor	33	Quick Query system	205-211
Level of living	102, 194	Reactors' recommendations	202, 203
Local government		Recommendations	
Federal guidelines, resistance to	187	Educational conditions, on improving	123
Studies of operations	40	Health conditions, on improving	125-128
Tax structures	120	Highlights	9-17
Technical assistance, public administration	40	Institutional research, for	135-138
Local people, role of	203	Interdisciplinary group, outline	113, 114
Lumber development	117	Interdisciplinary groups summary report	191-196
Maternal health	109-111	Unidisciplinary group sessions	148-154
Migrant Workers	48, 251	Relocation	50, 116, 119
Migration	116	Research	
Mining		Administrator-researcher conflict	105-107
By-products	118	Appalachia Regional Commission, by	168-171
Coal mining communities, priority of needs	133	Coordination of	166
Hiring and training	117	Economic conditions, improvement of, abstracts	246-255
Home ownership by miners	201	Education and training, improvement of, abstracts	255-260
Severance taxes	118	Fragmentation	160, 161
Motivation	41, 88, 122	Health protection and care, improvement of, abstracts	260-262
Negative income tax	39, 118	Housing and community serv- ice, abstracts of research	263-264
New Town, in Eastern Kentucky	141	Interinstitutional research in progress	138-147
Northern Appalachia	164	Irrelevancy	159
Nutrition	48, 260, 261	Optimum conditions for	188
Office of Economic Opportunity		Pattern of interdisciplinary and interinstitutional research, need for	202
Foster grandparents program	30	Poverty, analysis of, abstracts of research	245, 246
Organization and operation	27-35	Research community, power and responsibility of	176
Research and evaluation	29	Regional organization for cooperation	133
Office of Education, U. S.	180-182		
Participation of poor	103		
Planning			
Appalachia Regional Commission research	168		
Short course, proposal for	153, 154		
Politics—welfare, and	118		
Poverty			
Analysis, requirement for	193		
Culture, relation to	98		
Definition of	98		
Deprivation, adaptation to	99		
Disease, as a	190		

“Soft sciences”, need for more data from	186	TV network for health education	200
Sources of funds, cooperation needed for finding	199	Timber development	117
Resources		Tourism	40
Appalachia Regional Com- mission research	169	Transportation	169
Indigenous resources, development of	119	Unidisciplinary group session recommendations	148-154
Inventories of	40	Universities' role	202, 203
Revenue from, going outside	122	Upward Bound program	259
Water resource projects	71	Vocational education	122-124, 194
Return migration	21, 44	Water pollution, and strip mining	45
Schizophrenia	261	Welfare	
“School Phobia”	45	Mental effects of	191
Severance taxes on extracted wealth	118	Payments adequate to train for good job	34
Social Security	120	Politics, and	118
Social science	169	Recommendations by unidis- ciplinary group sessions	149
Strip mining, and water pollution	45	Youth	
Subsistence economy	100	Aspirations	57, 86, 87
Southern Appalachia	165	Community centers, differ- ences in those who visit	90
Taxation		Counseling, differences in those who seek	89
Credit for labor use	77, 201	Fear of failure	88
Local government	120	Intergenerational changes in values	91-95
Negative income tax	118	Upward Bound program	259
Property evaluation, and	117		
Real Estate—burden on poor	49		
Return of revenues to local government units	117		
Severance taxes on extracted wealth	118		