

THE RELATION OF LEVEL OF LIVING TO SELECTED
ATTITUDINAL CHARACTERISTICS OF CENTRAL
APPALACHIA RURAL FAMILIES

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Kwang Yue Chang

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CHAPTER I

INTRODUCTION

All Society is caught in the grip of social changes of considerable moment and velocity, and rural society is no exception. . . . Public opinion often changes before shifts in the political scenery occur. More fundamental are economic changes, and more important are changes in attitudes and philosophies, registering profound shifts in convictions.¹

Appalachia is a region of mountainous area upthrust between the prosperous Eastern seaboard and the industrial middle West. It is an area extending in a northeasterly direction roughly parallel to the Atlantic coast from northern Alabama to northern Pennsylvania and consisting of parts of ten states.² Recent interest in this area is evidenced by the appointment by the late President John F. Kennedy, on April 9, 1963, of the President's Appalachian Regional Commission consisting of a representative designated by each of

¹John H. Kolb and Edmund de S. Brunner, A Study of Rural Society, Houghton Mifflin Co., 4th ed., 1952, p. 3.

²Appalachia--A Report by the President's Appalachian Regional Commission 1964, U. S. Government Printing Office, Washington, D. C., 1964.

the governors of the Appalachian area and a representative from each major Federal department and agency. A report was presented in 1964 by the Commission which showed dark in this area due to its low income, high rate of unemployment, lack of urbanization, deficits in education. . . .³

More recently, the Congress of the United States has passed a bill authorizing the creation of an Appalachian Development Agency and supported by substantial expenditure to help relieve some of the problems in the area.

The South, which includes part of the Appalachian area, has also long been known for its relatively deprived position with respect to the rest of the nation. Level-of-living indexes of 1950 and 1959 which were compiled by the USDA, showed that the ". . . states in the South had the lowest level-of-living indexes, and 4 of the 6 lowest ranking states were in the East South Central Division in both year 1950 and 1959."⁴

³Ibid., pp. 1-16.

⁴Farm Operator Level-of-Living Indexes for Counties of the United States 1950 and 1959, USDA Economic Research Service, Stat. Bull. No. 321, Washington, D. C., 1962, p. 12.

U. S. Department of Health, Education and Welfare published "Family Income and Related Characteristics Among Low-Income Counties and States" in September 1964. It was found in this investigation that

. . . nine of the ten states with the lowest median incomes were southern states. A total of 540 counties or 87.1 per cent of the 620 counties with the lowest median incomes in 1959 were located in 14 of the 16 southern states.⁵

Since this region is different from the rest of the nation, special attention has been paid to analyze those social, economic and psychologic factors which characterized this region. The attempt of this study was to try to find some psychologic factors related to the socioeconomic status in this region. The study was limited to the data available and for present purposes only seven attitudinal variables were selected for the analysis of the relation of each to the level of living in the central Appalachia rural families and the differences in the relations as compared with the other southern families.

⁵ Family Income and Related Characteristics Among Low Income Counties and States, U. S. Department of Health, Education, and Welfare, Welfare Administration, Welfare Research Report 1 (Washington, Government Printing Office, 1964), p. 9.

The source of data for this study was the Southern Regional Project entitled "Factors in the adjustment of families and individuals to changing conditions in low income rural areas." It was approved in 1958 as a regional Agricultural Experiment Station project. Seven states (Alabama, Kentucky, Louisiana, Mississippi, North Carolina, Tennessee, and Texas) were included as active participants in this project. These states include part of the Central Appalachia area and much of the other low income South. One other state, Florida, also contributed to this project. The project was designed for the investigation of socioeconomic factors in the low income areas of the South including Central Appalachia. The main purpose of the S-44 Regional Project was to better describe and understand the present socioeconomic condition of rural families and their attitudes toward their present situation and possible future changes.⁶

A Technical Committee was formed to guide the regional project. The Committee was composed of one representative

⁶Charles L. Cleland, "A Regional Study of Adjustment in Southern Low-Income Areas," paper presented at the Southern Agricultural Workers Conference, February 5, 1952, Jacksonville, Florida.

from each state and participating agency plus an administrative advisor and a representative of the Cooperative States Research Service of the USDA. Responsibilities of the committee included clarification of the concepts to be used, determination of sampling procedures and other matters which would affect the comparability of the data across the region.

I. PURPOSE OF THE STUDY

The purpose of this study is to determine the relation between selected attitudinal variables and level of living of rural households in the Central Appalachia Area (hereafter referred to as Appalachia). In addition, the relation of these attitudes to level of living in other parts of the rural South will be determined in the interest of detecting any regional influence on such relationships. More specifically, the objectives are to:

1. Summarize the general data dealing with level of living in the rural areas of Appalachia.
2. Analyze the relation between various attitudinal factors and level of living in this area.
3. Compare the relationships found in No. 2 in rural Appalachia with similar relationships in other low-income rural areas of the South.

II. SOURCE OF DATA

As indicated above, the data were obtained from Regional Project S-44. A variety of information was obtained through interviews with the heads and homemakers of households included in the study in the period of 1960-61. This survey, based on a stratified, self-weighting, random area sample, yielded complete interviews with 1,908 households scattered among seven states and thirty counties.⁷ The information from each state was punched in IBM cards with duplicate "deck" being sent to each member of the Technical Committee of the project.

The present study is based on analysis of the complete sample of 1,908 households. Original information on the regional deck was supplemented with secondary information, such as scales and indexes which were developed by project participants.

III. SELECTED FACTORS

Level of living was the central focus in this study,

⁷ See Appendix A, page 104

two scales developed by North Carolina (Material Possessions and Communication Items) were used as indicators of level of living. Seven attitudinal variables were chosen for the analysis: anomia, head's attitude toward job mobility, head's attitude toward borrowing, head's attitude toward most recent job, head's perception of relative deprivation, desirability of head's job, and sources of head's greatest satisfaction.

The sample has been divided into Appalachia and Other South with the Other South further divided into white and nonwhite.

IV. ORGANIZATION OF REMAINDER OF THE THESIS

The remaining part of this thesis is a detailed elaboration into the problems stated in this chapter.

Chapter II contains a survey of the literature, a frame of reference for the approach to the problem, and the general form of the null hypotheses which are to be tested.

In Chapter III, a general description of the level of living and attitudes which existed at the time of the survey in Appalachia is presented.

In Chapter IV, there is an analysis of the relation

between attitudinal variables and level of living in Central Appalachia rural families.

In Chapter V, Appalachia and the Other South are compared based on the regional and racial differences of the relationships between attitudinal variables and level of living.

The final chapter is a brief summary and conclusion of the whole study. The statistical method employed in this study was that of testing hypotheses to justify the relationships with specified confidence level of .05. Methods of chi-square test, analysis of variance, and test significance of correlation coefficients were utilized.

CHAPTER II

FRAME OF REFERENCE AND FORMATION OF HYPOTHESES

I. INTRODUCTION

In this chapter, a brief survey of the literature is presented first. By carefully investigating the literature, a better understanding of the nature of the problem can be obtained. Also, the literature can provide a justification for the present study. The second part of the chapter deals with clarification of the notations and definitions utilized in this study. The hypotheses to be tested are in the last part of this chapter to give an insight of the main analysis in this study.

II. BRIEF REVIEW OF LITERATURE

Level of Living and Measurement

Early research on level of living was conducted through the study of family budgets. In 1894, a study on living standards of farm laborers living in the Lower Peninsula of Michigan was conducted by the Michigan Bureau of

Labor and Industrial Statistics. The wages, rent, other expenses, and average savings were studied.¹

Food consumption was used as a measure of the level of living of the rural people in the early stages. During 1896-1901 some dietary studies in different localities of New Mexico, Virginia, Vermont, Tennessee, and Georgia were carried out by the USDA office of Experiment Stations.²

Ellis L. Kirkpatrick made a survey of 2,886 white farm families scattered throughout eleven states in America was recognized as a large scale of level of living research during the 1920's.³ Allred, Hendrix, and Raskopf made a study in Tennessee which was a regional comparison on level

¹Michigan Bureau of Labor and Industrial Statistics, Twelfth Annual Report (Lansing, 1895), pt. 1, pp. 1-236.

²Arthur Goss, Dietary Studies in New Mexico in 1895 (USDA Office of Experiment Stations, Bulletin No. 40, 1897); and Nutrition Investigation in New Mexico in 1897 (No. 54, 1898).

Hollis B. Frissell and Isabel Bevier, Dietary Studies of Negroes in Eastern Virginia in 1897 and 1898 (No. 71, 1899).

Joseph L. Hills, Charles E. Wait, and H. C. White, Dietary Studies in Rural Regions in Vermont, Tennessee, and Georgia (No. 221, 1909).

³Ellis L. Kirkpatrick, The Farmer's Standard of Living: A Socio-Economic Study of 2,886 White Farm Families of Selected Localities in 11 States, USDA Bull. 1466 (Washington, D. C., 1926).

of living.⁴

A. R. Mangus and H. R. Cottam studied the level of living of Ohio farm people and their social participation and adjustment in 1941.⁵ More recently, attention has been paid to low-income rural families. The U. S. Department of Agriculture in 1955 published its study on the problem of 1.5 million low-income rural families.⁶

Scales for measurement of level of living were developed first by Kirkpatrick in the early 1920's.⁷ He developed a series of cost-consumption unit scales for farm families, including separate scales for food, clothing, rent, maintenance of health, advancement, personal foods, and

⁴C. E. Allred, W. E. Hendrix, and B. D. Raskopf, Regional Comparison of Rural Standards of Living in Tennessee, U. S. Federal Works Progress Administration, Cooperative Plan of Rural Research Rpt. 15 (Knoxville, Tennessee, 1936).

⁵A. R. Mangus and H. R. Cottam, Level of Living, Social Participation and Adjustment of Ohio Farm People (Ohio AES Bull. No. 642 (Wooster, 1941)

⁶Development of Agriculture's Human Resources: A Report on Problems of Low-Income Farmers (USDA, Washington, Government Printing Office, 1955).

⁷E. L. Kirkpatrick, The Standard of Life in a Typical Section of Diversified Farming, New York AES Bull. 423 (Ithaca, 1923).

furnishings. Somewhat later Clark published a scale designed primarily for evaluating farm home equipment.⁸ Ten equipment items that were thought to be of greatest significance were selected. The score for each home rated was simply the number of items found in the home. In 1940, Sewell presented a scale for the measurement of the socioeconomic status of Oklahoma farm families, and in 1943 he issued a short form of this scale. Belcher evaluated and restandardized the Sewell scale in 1951, and later published a modification of Sewell's short scale.⁹

Recently, there has been broad application and discussion of scales in measuring level of living. Danley and

⁸ Carroll D. Clark, "Evaluating Certain Equipment of the Modern Rural Home," Journal of Home Economics, XXII (1930), pp. 1005-1015.

⁹ William H. Sewell, The Construction and Standardization of a Scale for the Measurement of the Socio-Economic Status of Oklahoma Farm Families, Oklahoma AES Tech. Bull. 9 (Stillwater, 1940), and "A Short Form of the Farm Family Socio-Economic Status Scale," Rural Sociology, Vol. VIII:2 (June, 1943).

John C. Belcher, "Evaluation and Restandardization of Sewell's Socio-Economic Scale," Rural Sociology, Vol. XVI:3 (September, 1951).

John C. Belcher and Emmet F. Sharp, A Short Scale for Measuring Farm Family Level of Living: A Modification of Sewell's Socio-Economic Scale, Oklahoma AES Tech. Bull. No. T-46 (Stillwater, 1952).

Ramsey published "Standardization and Application of Level of Living Scale for Farm and Nonfarm Family" in 1959.¹⁰ In 1963, Sharp and Ramsey studied the components of different scaling methods and published an article entitled "Criteria of Item Selection in Level of Living Scales."¹¹

The scales so far mentioned are in the nature of measuring the level of living of individual families. However, indexes developed by Hagood,¹² Schuler,¹³ and Flagg and Longmore¹⁴ were extending the use of these measures to

¹⁰ Robert A. Danley and Charles E. Ramsey, Standardization and Application of Level of Living Scale for Farm and Nonfarm Family, Cornell University AES Memoir 362 (Ithaca, 1959).

¹¹ Emmitt F. Sharp and Charles E. Ramsey, "Criteria of Item Selection in Level of Living Scales," Rural Sociology, Vol. XXVIII:2 (June, 1963).

¹² Margaret Jarman Hagood, Farm-Operator Family Level of Living Indexes for Counties of the United States 1930 1940 1945 and 1950, Bureau of Agricultural Economics, USDA (Washington, D. C., May, 1952).

¹³ Edgar A. Schuler and Rachel Rowe Schuler, Trends in Farm Family Levels and Standards of Living (revised), Bureau of Agricultural Economics, USDA (Washington, D. C., August, 1947).

¹⁴ Grace L. Flagg and T. Wilson Longmore, Trends in Selected Facilities Available to Farm Families, Bureau of Agricultural Economics, USDA, Agricultural Information Bull. No. 87 (Washington, D. C., May, 1952).

an average sense for comparing among counties.

The Relation of Level of Living and
Attitudinal Factors

Very little work can be found in the literature concerning the relation of level of living to attitudinal variables. However, reports on the study of the relation between certain single attitudinal variable like anomia, satisfaction, perception of deprivation and socioeconomic status can be found in some writings. McVoy and Nelson, after their field research on rural people, concluded that their results showed that those individuals high in socioeconomic status (as measured by the Sewell scale) were high in satisfaction, and those low in socioeconomic status were less satisfied.¹⁵

Nelson interpreted level of living in the form of material possessions and he cited that the status of the family from the standpoint of its material possessions tends to be related to the morale, degree of satisfaction, social adjustment and general psychological well-being of family

¹⁵ Edgar C. McVoy and Lowry Nelson, Satisfaction in Living: Farm Versus Village, Minnesota AES Bull. No. 370 (St. Paul, June, 1943).

members.¹⁶

Stott in his paper, "Family Prosperity in Relation to the Psychological Adjustments of Farm Folk," wrote: ". . . a feeling of social inferiority might arise from an unfavorable relative economic level. . . ." ¹⁷

Kaufman characterized some social economic aspects of a low-income area. At one point he mentioned that a complex of attitudes toward change and social mobility, e.g., conservatism and lacking drive, was associated with low-income rural areas.¹⁸ This conservatism and lack of drive may shape their attitude toward borrowing and job mobility. While Kaufman's reference was to low-income area and the present study is concerned with factors related to level of living, there tends to be a high correlation between income and level of living. His results, therefore, have some bearing on the

¹⁶Lowry Nelson, Rural Sociology (New York: American Book Company, 1952), p. 301.

¹⁷Leland H. Stott, "Family Prosperity in Relation to the Psychological Adjustments of Farm Folk," Rural Sociology, Vol. X:3 (September, 1945), p. 263.

¹⁸Harold F. Kaufman, Rural Families with Low Income: Problems in Adjustment, Mississippi State College Sociology and Rural Life Series No. 9 (Miss. State College, AES, State College, 1957).

present study.

Srole in 1950 conducted a study of anomia in Springfield, Massachusetts.¹⁹ From a selected sample limited to white, Christian, native-born transit riders, he found that a negative correlation existed between socioeconomic status and anomia. Killian and Grigg studied the anomia of rural and urban people in two southeastern communities of Florida with population 3,000 and 30,000, respectively.²⁰ One of their findings suggested that position in the social structure was most likely to be associated with differences in anomia.

Moon, in his 1963 dissertation, studied factors in the adjustment of rural families in low-income areas of the South. He found the net effect of anomia on level of living to be significant at the .001 level. This clearly showed that there is a relation between level of living and anomia

¹⁹Leo Srole, "Social Integration and Certain Corollaries: An Exploratory Study," American Sociological Review, XXI:709-16 (December, 1956), pp. 714-15.

²⁰Lewis M. Killian and Charles M. Grigg, "Urbanism, Race, and Anomia," American Journal of Sociology, LXVII (May, 1962), pp. 661-65.

among rural families in this area.²¹

Hammonds dealt with the same source of data from S-44 as Moon did, and wrote his dissertation, "Socio-Economic Status and Anomia," in 1963. His results were the same as Moon's regarding the relation between level of living and anomia, although he used chi-square while Moon used a revised variance analysis method. Hammonds also analyzed the relation between socioeconomic status and perception of economic deprivation. He found these two factors to be highly related. The chi-square showed a significance level beyond .001.²²

III. FRAME OF REFERENCE

Area Description

The object area of S-44 project was designed to cover five subregions in the low-income and low level of living in the South. According to the original classification, they

²¹Seung G. Moon, "A Study of Factors in the Adjustment of Rural Families in Low-Income Areas" (unpublished Doctoral dissertation, North Carolina State College, Raleigh, 1963), p. 94.

²²André D. Hammonds, "Socio-economic Status and Anomia: An Interpretation and Specification of the Relationship" (unpublished Doctoral dissertation, The University of Tennessee, Knoxville, 1963), p. 59.

were Appalachian Mountains and Border, South Piedmont and Coastal Plains, Southeastern Hilly, Mississippi Delta, and Sandy Coastal Plains. The universe of county units totaled 196 and were scattered among seven states. These low-income counties were selected based on 1956 "Farm Operator Family Level of Living Indexes" prepared by Bureau of Census. The initial sampling units were counties with the secondary units random area segments in the open country parts of these counties.

The area of Appalachia, to which the results of this analysis can be generalized, is an area covering fifty-three counties in three states. It is located in the central part of the Appalachian area referred to in Chapter I. Most of these counties are in eastern Kentucky with part of them in North Carolina and Tennessee. Seven of the sample counties have been used to represent this area. The "Other South" as used here is the area covered in the S-44 project excluding Appalachia. Twenty-three sample counties scattered among six states were selected to represent this area. A sample area map is presented in Figure 1 and the detailed information is provided in Appendix A.

Rural

There is no clear cut distinction between the meaning of rural and urban areas. According to the definition given by Bureau of Census, the rural population includes those people residing in all unincorporated territory and in incorporated places of less than 2,500 population. Landis defined the rural area in a way based upon population, social-psychological, and economic-occupational analysis. He classified rural as those areas having a population under 2,500 people, a high degree of intimacy, relationships characterized by informality, and with farming as the central point of interest.²³

Nelson, while discussing rural problems, included as "rural" those people who were agricultural workers as well as those in the small towns engaged in operating service agencies primarily for farm people.²⁴

Family

In a general sense, a family is a social unit including the head of a household and all persons living in the

²³Paul H. Landis, Rural Life in Process (New York: McGraw-Hill Book Co., 1940), p. 18.

²⁴Nelson, op. cit., pp. 8-11.

household who are related to the head.²⁵ The present discussion on family is confined to the pattern set by the original S-44 survey. Since for survey purposes, families and households were equated, these two terms are used interchangeably in the following analysis.

As in the S-44 survey, the rural families were restricted to mean those families and households resident in the open country.

Scales and Other Measures

Scales employed in this study are the Material Possessions and Communication Items scales (hereafter referred to as Material Possessions, or M.P., and Communication Items, or C.I.) for level of living. Other scales include those for anomia, and attitude toward job mobility. Attitude toward borrowing, attitude toward most recent job, relative deprivation, desirability of head's job, and sources of head's greatest satisfaction, were measured by other means. These were all developed by the participants in the S-44 project

²⁵Otis D. Duncan and Albert J. Reiss, Jr., Social Characteristics of Urban and Rural Communities, 1950 (New York: John Wiley & Sons, Inc., 1956), pp. 73-79.

and most have not yet been published.

The scaling methods employed in the S-44 project provide a sound basis for evaluating the discrimination of and consistency among selected items and questions. Further, they give a clearer understanding to the desire and situation of the rural households in this area. The scales included here were developed using the Guttman scaling technique. Predictive Improvement Coefficients have also been computed to provide a more easily interpreted measure of the deviation from a perfect pattern of scale types.²⁶ The measures employed other than the Guttman scales were ordered categories to which numerical values were assigned.

Level of Living

Level of living is used here in the sense of the possession or use of specified goods and services which are felt to be indicators of the more general pattern of such possessions. Each of the two scales used here has seven

²⁶Charles L. Cleland, editor, "Scaling Social Data: A Comparison of Various Techniques Used in Scale Construction" (manuscript to be published as Southern Cooperative Series Bulletin, Tennessee Agricultural Experiment Station, Knoxville).

scale scores from 0 to 6. The larger the score, the higher the level of living it indicates. The items included in the Material Possessions scale from greatest to least frequency of possession are:

1. Mechanical refrigerator
2. Gas or electric range
3. Kitchen sink
4. Water piped into the house
5. Installed bath or shower
6. Vacuum cleaner.

The items in the Communication Items scale, again from greatest to least frequency of possession, are:

1. Radio
2. Television
3. Automobile
4. Daily newspaper
5. Telephone
6. Weekly or monthly magazine other than farm or trade magazine for women.

Attitudinal Variables

A number of attitudes have been mentioned which may be related to level of living and some literature has been cited which supports this point of view. As this was known by S-44 project designers, many attitudinal questions were included in original survey and studies. In this study, seven attitudinal variables stated below were selected for the investigation into their relation with level of living:

Anomia. Anomia is an attitude which has to do with the individual's feeling of frustration or despair engendered by the social condition.²⁷ Here the measure of anomia was the response pattern of agreement or disagreement to six general statements to arrive at the scale scores. These were:

- (a) Things have usually gone against me in life.
- (b) It's hardly fair to bring children into the world with the way things look for the future.
- (c) Nowadays a person has to live pretty much for today and let tomorrow take care of itself.
- (d) In spite of what some people say, the lot of the average man is getting worse, not better.
- (e) These days a person doesn't really know on whom he can count.
- (f) Even if his family objects, a man should choose a job he thinks is best for him.

The scales for both heads and homemakers as developed had scores ranging from 0 to 6. The higher the score, the more pessimistic the attitude. This scale has occasionally been referred to as the "despondency scale."

Head's attitude toward job mobility. This is based upon the head's responses to a series of questions concerning

²⁷Hammonds, op. cit., p. 21.

whether he would agree to take a new job at twice his present income under certain conditions. Six conditions were found to satisfy the criteria for scaling. These were:

- (a) Working at night.
- (b) Moving to a new community.
- (c) Giving up spare time.
- (d) Working harder.
- (e) Being away from family a lot.
- (f) Family moving around the country a lot.
- (g) Health being endangered.

Scale scores ranged from 0 to 7, which represent the different degrees of strength of the head's intent and attitude toward job mobility.

Head's attitude toward borrowing. Money borrowing is a way of investment and seasonal adjustment in rural society. The measure used here was based on the household head's responses to questions on whether he felt people would be better off if they

- (a) Did not borrow money at all,
- (b) Borrowed money for business or farming purpose only,

- (c) Borrowed money for buying things for the home, business, or farming purpose, or
- (d) Borrowed for pleasure trips or anything he wants as well as for the home and business or farming purposes.

These four questions were designed as four categories to show the different degrees of willingness of the head to borrow money.

Head's attitude toward most recent job. Three categories were assigned:

- (a) Favorable.
- (b) Mixed--about evenly favorable and unfavorable.
- (c) Unfavorable.

Each category was represented for a different degree of head's favor toward his most recent job.

Head's perception of relative deprivation. The four categories utilized here include:

- (a) Head thought family did not go without things needed.
- (b) Head thought family was deprived with respect to living expenses.
- (c) Head thought family really needed money for housing and communication.
- (d) Head thought family really needed money for investment, recreation, health, saving, etc.

The desirability of head's job. Three categories were constructed:

- (a) More desirable.
- (b) Just as desirable.
- (c) Not as desirable.

This arrangement was in terms of decreasing degree of desirability from the head's point of view.

Sources of head's greatest satisfaction. The categories were arranged in:

- (a) Job or work.
- (b) Relation with family and kin.
- (c) Religion and others.

IV. FORMATION OF HYPOTHESES

The statistical methods of testing hypotheses in this study included the chi-square test, the analysis of variance, and test significance of the difference between the correlation coefficients of two populations. The hypotheses stated in the null form and classified according to regional and racial differences are listed below:

A. Formation of hypotheses within Appalachia rural families.

1. No relation existed between anomia and level of living.
2. No relation existed between head's attitude toward job mobility and level of living.
3. No relation existed between head's attitude toward borrowing and level of living.
4. No relation existed between head's attitude toward most recent job and level of living.
5. No relation existed between head's perception of relative deprivation and level of living.
6. No relation existed between desirability of head's job and level of living.
7. No relation existed between sources of head's greatest satisfaction and level of living.

B. Formation of hypotheses between Appalachia rural families and Other South rural families.

1. The relationship of level of living to each attitudinal variable for Appalachia rural families is same as that which exists for Other South white rural families.
2. The relationship of level of living to each attitudinal variable for Appalachia rural families is same as that which exists for Other South nonwhite rural families.

V. SUMMARY

A brief review of the literature showed that level of living has been studied more or less intensively since 1895.

Recently, scaling methods have been widely employed for the measurement of level of living. Very little work has been done on exploring the relation of level of living to attitudinal variables. There were, however, scattered materials which had some concern with level of living as related to attitudinal factors such as anomia, conservatism, satisfaction, and perception of deprivation.

The scope of this study is confined to the data available in the S-44 project. An attempt has been made to clarify terms and to provide a frame of reference before proceeding into the detailed analysis.

Null hypotheses have been stated and listed in this chapter to provide for statistical test in following chapters. The establishment of the null hypotheses provides the means for finding the relation between level of living and seven attitudinal variables within Appalachia rural families and the differences in those relations of Appalachia rural families as compared with those in the Other South.

CHAPTER III

LEVEL OF LIVING AND ATTITUDINAL VARIABLES IN CENTRAL APPALACHIA RURAL FAMILIES

I. INTRODUCTION

This chapter deals with the description of the level of living and attitudes found in the 1960-61 investigation of rural families of Appalachia. A total of 521 families comprise the sample upon which the analysis is based. The detailed distribution of each characteristic is presented and the grouping of the scale scores and category items which is to be used in the later analysis is indicated.

II. LEVEL OF LIVING

Material Possessions

Table I contains the distribution of the Material Possessions scale scores for Appalachia. Examination of the table reveals that the rural families in this area generally were not too well off. About 30 per cent of the rural Appalachia families had low level of living scale scores. Among

TABLE I

DISTRIBUTION OF RURAL APPALACHIA FAMILIES
BY MATERIAL POSSESSIONS SCALE SCORES

Level	Low		Medium		High			Total
Scale Scores	0	1	2	3	4	5	6	
No. of families	47	96	78	69	111	38	81	520
% of families by scores	9.0	18.5	15.0	13.3	21.3	7.3	15.6	100.0
% of families by general level of living	27.5		28.3		44.2			100.0

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those low-level score families, one-third had none of the items in the scale. Nearly 30 per cent of rural families fell into the medium category. The families in the high level of living group constitute a little more than 40 per cent.

Communication Items

The distribution of the Communication Items scale scores for Appalachia is presented in Table II. The proportion of families with a low level of living was not affected by using this scale compared to that of the Material Possessions scale, but the proportion at the medium level was increased substantially. This difference resulted from a comparatively larger proportion of rural families possessing the first three items of the Communications Items scale than possessed the first three items of the Material Possessions scale. Thus, on the Communication Items scale, the high level of living families in rural Appalachia comprised 30 per cent of the total.

TABLE II
DISTRIBUTION OF RURAL APPALACHIA FAMILIES
BY COMMUNICATION ITEMS SCALE SCORES

Level	Low		Medium		High			Total
Scale Scores	0	1	2	3	4	5	6	
No. of families	38	117	78	143	70	51	23	520
% of families by scores	7.3	22.5	15.0	27.5	13.5	9.8	4.4	100.0
% of families by general level of living	29.8		42.5		27.7			100.0

III. ATTITUDINAL VARIABLES

Anomia

Tables III and IV contain the distribution of the anomia scale scores of Appalachia rural household heads and homemakers respectively. It seems that both groups were anomic to a rather great extent. The distribution shows that approximately three-fourths of them had anomia scores higher than "1". The homemakers tended to go to the extremes. As shown in Table IV, a larger proportion of the homemakers fell at the two ends of the scale as compared with the heads but on the average, the heads seem to have been more pessimistic.

Head's Attitude Toward Job Mobility

From the distribution of the head's attitude toward job mobility scale scores in Table V, it may be seen that the heads in Appalachia had a very strong interest in improving their pay. Just under one-fourth of the household heads favored none of the seven scale conditions, i.e., they were unwilling to sacrifice any of their present situation in order to add substantially to their income. Seven per cent were willing only to work at night, 7 per cent of heads were

TABLE III

ANOMIA OF APPALACHIA RURAL HOUSEHOLD HEADS

Group Scale Scores	Low		Medium		High			Total
	0	1	2	3	4	5	6	
No. of household heads	55	38	82	88	49	48	58	418
% of heads by scores	13.2	9.1	19.6	21.0	11.7	11.5	13.9	100.0
% of heads by scale group	22.3		40.6		37.1			100.0

TABLE IV

ANOMIA OF APPALACHIA RURAL HOUSEHOLD HOMEMAKERS

Group	Low		Medium		High			Total
Scale Scores	0	1	2	3	4	5	6	
No. of household homemakers	57	72	88	55	52	76	92	492
% of homemakers by scores	11.6	14.6	17.9	11.2	10.6	15.4	18.7	100.0
% of homemakers by scale group	26.2		29.1		44.7			100.0

TABLE V

ATTITUDE TOWARD JOB MOBILITY OF APPALACHIA
RURAL HOUSEHOLD HEADS

Group	Interest								Total
	No	Low			High				
Scale Scores	0	1	2	3	4	5	6	7	
No. of household heads	72	22	22	23	36	38	53	32	298
% of heads by scores	24.2	7.4	7.4	7.7	12.1	12.7	17.8	10.7	100.0
% of heads by scale group	24.2	22.5			53.3				100.0

willing to move to a new community in addition to working at night, 8 per cent also favored giving up spare time. These three scores were grouped together and classified as "low interest" group heads concerning their willingness to sacrifice for increasing income. About half of the heads were classified as "high interest" group in terms of their attitude toward job mobility for increasing pay. Among this high interest group heads, one-fifth would take such a job even if their health would be endangered in addition to other six scale conditions. This shows that people in this area tended to have a very favorable attitude toward job mobility for better pay.

Head's Attitude Toward Borrowing

In Table VI it can be seen that about one-fourth of the Appalachian heads felt that people would be better off if they didn't borrow money at all. Three-fourths of them favored borrowing. Among those who favored borrowing money, one-fourth of them thought they should borrow for productive purposes only. One-half of them favored borrowing for home use and productive purposes. One-fifth of them did not object to borrowing for pleasure trip or anything they wanted including home or business use.

TABLE VI
ATTITUDE TOWARD BORROWING OF APPALACHIA
RURAL HOUSEHOLD HEADS

<u>Group</u> Category	Should Not Borrow	<u>Should Borrow</u>			Total
		Productive Purpose Only	Household Goods Also	Any Purpose	
No. of household heads	99	124	155	40	418
% of heads by category	23.7	29.6	37.1	9.6	100.0
% of heads by category group	23.7		76.3		100.0

Head's Attitude Toward Most Recent Job

The figures presented in Table VII show that one-fifth of the heads of Appalachia rural families found more to dislike than to like about their present or most recent job. Forty-three per cent of the heads subscribed to more of the favorable statements, while 37 per cent of heads found about as many things to like as to dislike about their jobs.

Head's Perception of Relative Deprivation

The results presented in Table VIII show that 56 per cent of the heads did not think they were under deprivation. Among those who did think they were deprived, two-fifths thought they were deprived of living items such as food and clothing; another two-fifths thought they needed but couldn't afford things having to do with housing and communication.

Desirability of Head's Job

From Table IX it may be seen that about three-fourths of the household heads thought their work was just as desirable as other work in the community. Very few of heads in this area thought their jobs to be not as desirable. One-fifth of them felt that their job was more desirable compared to other jobs in the community.

TABLE VII

ATTITUDE TOWARD MOST RECENT JOB OF APPALACHIA
RURAL HOUSEHOLD HEADS

<u>Group</u> <u>Category</u>	Favorable	<u>Other Than Favorable</u>		Total
		Mixed	Unfavorable	
No. of household heads	111	95	51	257
% of heads by category	43.2	37.0	19.8	100.0
% of heads by category group	43.2		56.8	100.0

TABLE VIII

PERCEPTION OF RELATIVE DEPRIVATION OF APPALACHIA
RURAL HOUSEHOLD HEADS

<u>Group</u> Category	<u>Area of Felt Deprivation</u>			Do Not Feel Deprived Of Necessities	Total
	<u>Living Expenses</u>	<u>Housing & Communica- tion</u>	<u>Others</u>		
No. of household heads	67	79	36	235	417
% of heads by category	16.0	19.0	8.6	56.4	100.0
% of heads by category group		43.6		56.4	100.0

TABLE IX
DESIRABILITY OF JOB OF APPALACHIA
RURAL HOUSEHOLD HEADS

<u>Group</u> Category	More Desirable	Just As Desirable	<u>Less Desirable</u>		Total
			Less Desirable	Don't Know	
No. of household heads	61	214	11	5	291
% of heads by category	21.0	73.5	3.8	1.7	100.0
% of heads by category group	21.0	73.5	5.5		100.0

Sources of Head's Greatest Satisfaction

From Table X it may be seen that nearly two-thirds of heads in this area of Appalachia felt the relation with family and kin to be the source of greatest satisfaction. Family was the strongest tie in the mind of people in this area, with 63 per cent of the heads indicating that this was true for them. Only 10 per cent of heads thought of the job and work as the source of greatest satisfaction. Twenty per cent thought of religion and others as providing the greatest satisfaction.

IV. SUMMARY

The Material Possessions scale and Communication Items scale were selected for this study as two indicators of level of living. Both show that there were nearly 10 per cent of the rural families living without even one of the six scale items. About 20 per cent of the rural families had only a refrigerator on the Material Possessions scale and a like proportion had only a radio in the Communication Items scale.

Examination of the responses to questions relating to selected attitudinal variables by rural residents in

TABLE X
SOURCES OF GREATEST SATISFACTION OF APPALACHIA
RURAL HOUSEHOLD HEADS

<u>Group</u>	<u>Other Sources</u>						<u>Total</u>
	<u>Job</u>	<u>Relation</u>	<u>Activi-</u>	<u>Spare</u>	<u>Reli-</u>	<u>Educa-</u>	
<u>Cate-</u>	<u>or</u>	<u>With</u>	<u>ties as</u>	<u>Time &</u>	<u>gion</u>	<u>tion</u>	
<u>gory</u>	<u>Work</u>	<u>and Kin</u>	<u>Citizen</u>	<u>ation</u>			
No. of house- hold heads	45	262	8	3	81	14	413
% of heads by cate- gory	10.9	63.4	2.0	0.7	19.6	3.4	100.0
% of heads by cate- gory group	10.9	63.4		25.7			100.0

Appalachia revealed that:

1. High anomia tends to characterize both household heads and homemakers.
2. A large proportion of the heads were very willing to make some sacrifices in order to improve their incomes.
3. Household heads in general had a conservative attitude toward borrowing.
4. About one-fifth of the heads mentioned more unfavorable than favorable characteristics of their most recent job. Twice this proportion mentioned more favorable than unfavorable characteristics.
5. More than two-fifths of heads felt that they were deprived of some necessities due to limited incomes.
6. A majority of the heads felt that their work was at least as desirable as most jobs held by others in the community.
7. A majority of the heads felt that their greatest satisfactions came from their relations with family and kin.

CHAPTER IV

ANALYSIS OF THE RELATIONSHIP BETWEEN ATTITUDINAL VARIABLES AND LEVEL OF LIVING FOR THE CENTRAL APPALACHIA RURAL FAMILIES

I. INTRODUCTION

The purpose of this chapter is to determine the nature of the relation between the seven previously indicated attitudinal variables and level of living for central Appalachia rural families. As previously indicated, the number of households in the Appalachia area surveyed during 1960-61 was 521. However, in the tables, the total numbers of households deviated from this total to some extent. This is due in some instances to the omission of those families from which no response was obtained and in others to the inapplicability of the question. One case was lost due to an unintended erasure of part of a tape at an advanced stage of the machine analysis.

Seven groups of hypotheses, stated in the null form, are tested in the following analyses. The chi-square test is employed first to certify whether there is a significant

relation. The corrected coefficient of contingency ($\bar{C}$) is used to indicate the extent of the relations. The relations are described only if the null hypothesis is rejected.

Another analytic technique, the analysis of variance, is also utilized for testing the significance of the relationships to support the chi-square results, and later, to test for linearity of the relationship. If a non-linear relationship has been found, a correlation ratio is calculated. The results of the variance analysis are presented in the tables in Appendix B.

II. TESTING THE HYPOTHESES AND ELABORATION OF RELATIONSHIPS

Relation Between Anomia and Level of Living

In this analysis, the relation of the head's and the homemaker's anomia to level of living were tested separately. Tables XI, XII, XIII, and XIV contain the percentages for the comparison of head's and homemaker's anomia in different level of living categories. The relation of anomia to level of living was found to be significant in each instance. Using Material Possessions as the indicator of level of living, the results in these tables showed that nearly 30 per cent

TABLE XI

THE RELATION OF HEAD'S ANOMIA TO LEVEL OF LIVING
(MATERIAL POSSESSIONS) IN RURAL APPALACHIA

Level of Living (M.P.)	N	Head's Anomia			Total
		Low 1 - 2	Medium 3 - 4	High 5 - 7	
		----- % -----			
Low 1 - 2	110	13.6	36.4	50.0	100.0
Medium 3 - 4	114	21.9	43.0	35.1	100.0
High 5 - 7	193	27.5	41.5	31.0	100.0
Total	417	22.3	40.5	37.2	100.0

$$\chi^2 = 13.62$$

$$df = 4$$

$$P < .01$$

$$\bar{C} = .241$$

TABLE XII

THE RELATION OF HOMEMAKER'S ANOMIA TO LEVEL OF LIVING
(MATERIAL POSSESSIONS) IN RURAL APPALACHIA

Level of Living (M.P.)	N	Homemaker's Anomia			Total
		Low 1 - 2	Medium 3 - 4	High 5 - 7	
		----- % -----			
Low 1 - 2	129	21.7	19.4	58.9	100.0
Medium 3 - 4	142	23.2	28.9	47.9	100.0
High 5 - 7	221	30.8	34.8	34.4	100.0
Total	492	26.2	29.1	44.7	100.0

$$\chi^2 = 21.34 \quad df = 4 \quad P < .001 \quad \bar{C} = .276$$

TABLE XIII

THE RELATION OF HEAD'S ANOMIA TO LEVEL OF LIVING
(COMMUNICATION ITEMS) IN RURAL APPALACHIA

Level of Living (C.I.)	N	Head's anomia			Total
		Low 1 - 2	Medium 3 - 4	High 5 - 7	
		----- % -----			
Low 1 - 2	108	16.7	38.9	44.4	100.0
Medium 3 - 4	191	18.3	42.4	39.3	100.0
High 5 - 7	118	33.9	39.0	27.1	100.0
Total	417	22.3	40.5	37.2	100.0

$$\chi^2 = 15.29$$

$$df = 4$$

$$P < .01$$

$$\bar{C} = .255$$

TABLE XIV

THE RELATION OF HOMEMAKER'S ANOMIA TO LEVEL OF LIVING
(COMMUNICATION ITEMS) IN RURAL APPALACHIA

Level of Living (C.I.)	N	Homemaker's Anomia			Total
		Low 1 - 2	Medium 3 - 4	High 5 - 7	
		----- % -----			
Low 1 - 2	135	18.5	22.2	59.3	100.0
Medium 3 - 4	217	25.8	30.9	43.3	100.0
High 5 - 7	140	34.2	32.9	32.9	100.0
Total	492	26.2	29.1	44.7	100.0

$$\chi^2 = 20.54$$

$$df = 4$$

$$p < .001$$

$$\bar{c} = .271$$

of the heads in high level of living families had low anomia, which is twice the proportion of the heads of low level of living families having low anomia. Half of the heads in low level of living families had high anomia while less than one-third of the heads in high level of living families had high anomia. More than 40 per cent of heads in medium level of living families had inclined to medium anomia and leading in percentages comparing to other two level of living families with medium anomia. By employing the Communication Items scale as the indicator of level of living, the relation of level of living to head's anomia showed a similar pattern.

Homemakers seem to have their anomia more sensitive to level of living. Nearly 60 per cent of homemakers had high anomia in the low level of living families while in medium level of living families the high anomia homemakers still occupied a substantial proportion--around 45 per cent. Among high level of living families, about one-third of the homemakers fell into the high anomia group. In high level of living families, the percentage of low anomia homemakers is slightly higher than those low anomia heads in this level of living families. This fact shows that the higher level of living seems to contribute more to the feelings of

confidence and security in the homemakers than for the heads of these Appalachia rural families. The corrected coefficient of contingency shows the relation between homemaker's anomia and Material Possessions to be strongest with $\bar{C} = .276$; the relation between head's anomia and Material Possessions is the weakest of the four with $\bar{C} = .241$.

Using variance analysis, the four null hypotheses implied above were rejected at the .001 level of significance. The result of testing for linearity showed the relation of head's anomia to level of living (either by Material Possessions or Communication Items scale as indicator) was non-linear rather than linear. The correlation ratio for head's anomia to the Material Possessions and to Communication Items scale was .28 and .27, respectively. The results of the test for linearity for homemaker's anomia to level of living (both Material Possessions and Communication Items) showed that a linear relation existed.

Relation Between Head's Attitude Toward Job Mobility and Level of Living

Tables XV and XVI contain the percentage for comparing head's attitude toward job mobility (as classified into three groups) of different level of living families. According to

TABLE XV

THE RELATION OF HEAD'S ATTITUDE TOWARD JOB MOBILITY
TO LEVEL OF LIVING (MATERIAL POSSESSIONS)
IN RURAL APPALACHIA

Level of Living (M.P.)	N	Attitude Toward Job Mobility			Total
		No Interest	Low Interest	High Interest	
		1	2 - 4	5 - 8	
Low		----- % -----			
1 - 2	70	20.0	20.0	60.0	100.0
Medium					
3 - 4	78	21.8	21.8	56.4	100.0
High					
5 - 7	150	27.3	24.0	48.7	100.0
Total	298	24.2	22.5	53.3	100.0

$$\chi^2 = 3.00 \quad df = 4 \quad P > .50$$

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TABLE XVI

THE RELATION OF HEAD'S ATTITUDE TOWARD JOB MOBILITY
TO LEVEL OF LIVING (COMMUNICATION ITEMS)
IN RURAL APPALACHIA

Level of Living (C.I.)	N	Attitude Toward Job Mobility			Total
		No Interest	Low Interest	High Interest	
		1	2 - 4	5 - 8	
Low		----- % -----			
1 - 2	58	25.9	22.4	51.7	100.0
Medium					
3 - 4	149	18.8	24.8	56.4	100.0
High					
5 - 7	91	31.9	18.7	49.4	100.0
Total	298	24.2	22.5	53.3	100.0

$$\chi^2 = 5.58 \quad df = 4 \quad P > .10$$

the results of chi-square test, no relation was found to exist between head's attitude toward job mobility and level of living; i.e., heads in either low or high level of living families had same attitude toward job mobility.

In variance analysis, the null hypothesis that there is no relation between head's attitude toward job mobility and Material Possessions was accepted. The null hypothesis of no relation between head's attitude toward job mobility and Communication Items was rejected at the .05 level of significance. Testing for linearity of means for this distribution showed that the relation is in a non-linear form with a correlation ratio of .23. Since this result contradicts the result in the chi-square test and with the F value just a little beyond the .05 critical point, it is doubtful whether any definite conclusions about the relationships between head's attitude toward job mobility and level of living can be drawn.

Relation Between Head's Attitude Toward Borrowing and Level of Living

Tables XVII and XVIII contain the percentages for comparison of head's attitude toward borrowing in different level of living categories. Using Material Possessions as

TABLE XVII

THE RELATION OF HEAD'S ATTITUDE TOWARD BORROWING
TO LEVEL OF LIVING (MATERIAL POSSESSIONS)
IN RURAL APPALACHIA

		Head's Attitude Toward Borrowing				
			Should Borrow			
Level of Living (M.P.)	N	Should Not Borrow	Productive Household Purpose Only	Goods Also	Any Purpose	Total
		1	2	3	4	
----- % -----						
Low 1 - 2	111	31.5	33.3	28.0	7.2	100.0
Medium 3 - 4	113	35.4	23.0	32.7	8.9	100.0
High 5 - 7	193	11.9	31.6	45.1	11.4	100.0
Total	417	23.5	29.7	37.2	9.6	100.0

$$x^2 = 31.07 \quad df = 6 \quad P < .001 \quad \bar{C} = .335$$

TABLE XVIII

THE RELATION OF HEAD'S ATTITUDE TOWARD BORROWING
TO LEVEL OF LIVING (COMMUNICATION ITEMS)
IN RURAL APPALACHIA

		Head's Attitude Toward Borrowing				
		Should Borrow				
Level of Living (C.I.)	N	Should	Productive Household		Any	Total
		Not Borrow	Purpose Only	Goods Also	Purpose	
		1	2	3	4	
		----- % -----				
Low 1 - 2	109	32.1	33.9	25.7	8.3	100.0
Medium 3 - 4	190	23.7	28.4	37.4	10.5	100.0
High 5 - 7	118	15.3	28.0	47.4	9.3	100.0
Total	417	23.5	29.7	37.2	9.6	100.0

$$\chi^2 = 15.35 \quad df = 6 \quad p < .02 \quad \bar{C} = .240$$

the indicator of level of living, a relatively high percentage of heads in high level of living families (11.4 per cent) agreed that they should borrow money for any purpose while a smaller proportion of heads in low level of living families (7.2 per cent) favored this kind of borrowing. More than 30 per cent of heads in low level of living families thought they should not borrow money at all while only one-tenth of heads in high level of living families had this viewpoint. By using Communication Items scale as indicator for level of living, it was found that the lower the level of living scores of those families, the more conservative the attitude of those heads toward borrowing. About 30 per cent of heads in low level of living families showed that they should not borrow while 15 per cent of heads in high level of living families were in agreement with this attitude. A tendency is shown that whichever of these two indicators of level of living is used, a comparatively larger proportion of heads in low level of living families were reluctant to borrow than those in high level of living families. Furthermore, among those who thought they should borrow, still a larger percentage of heads in low level of living families thought they should borrow only for productive purpose than those who

lived in high level of living families. Thus the degree of willingness to borrow is positively related to level of living.

The findings in variance analysis also justify the above conclusion. The null hypothesis that no relation exists between head's attitude toward borrowing and Material Possessions is rejected at .001 level and the parallel null hypothesis relating to the Communication Items is rejected at the .01 level of significance. Both relationships were identified as having the characteristic of linearity.

Relation Between Head's Attitude Toward
Most Recent Job and Level of Living

Tables XIX and XX contain the percentage distributions for comparing head's attitude toward most recent job between different level of living groups. The results of both chi-square and variance analysis test showed no evidence of existing of a relationship. Thus no further analysis was made.

Relation Between Head's Perception of
Deprivation and Level of Living

Tables XXI and XXII contain the percentages for comparing head's perception of deprivation (as classified in

TABLE XIX

THE RELATION OF HEAD'S ATTITUDE TOWARD MOST RECENT JOB
TO LEVEL OF LIVING (MATERIAL POSSESSIONS)
IN RURAL APPALACHIA

Level of Living (M.P.)	N	Head's Attitude Toward Most Recent Job			Total
		<u>Favorable</u>	<u>Mixed</u>	<u>Unfavorable</u>	
		1	2	3	
		----- % -----			
Low 1 - 2	63	39.7	36.5	23.8	100.0
Medium 3 - 4	67	38.8	44.8	16.4	100.0
High 5 - 7	126	46.8	33.3	19.9	100.0
Total	256	43.0	37.0	20.0	100.0

$$\chi^2 = 3.31 \quad df = 4 \quad P > .30$$

TABLE XX

THE RELATION OF HEAD'S ATTITUDE TOWARD MOST RECENT JOB
TO LEVEL OF LIVING (COMMUNICATION ITEMS)
IN RURAL APPALACHIA

Level of Living (C.I.)	N	Head's Attitude Toward Most Recent Job			Total
		<u>Favorable</u>	<u>Mixed</u>	<u>Unfavorable</u>	
		1	2	3	
		----- % -----			
Low 1 - 2	54	48.1	29.6	22.3	100.0
Medium 3 - 4	133	37.6	44.4	18.0	100.0
High 5 - 7	69	49.3	29.0	21.7	100.0
Total	256	42.9	37.2	19.9	100.0

$$\chi^2 = 6.29 \quad df = 4 \quad P > .10$$

TABLE XXI

THE RELATION OF HEAD'S PERCEPTION OF RELATIVE DEPRIVATION
TO LEVEL OF LIVING (MATERIAL POSSESSIONS)
IN RURAL APPALACHIA

Level of Living (M.P.)	N	Deprived				Total
		Living Expenses 1	Housing & Communica- tion 2	Others 3	Not Deprived 4	
		----- % -----				
Low 1 - 2	112	27.7	23.2	8.9	40.2	100.0
Medium 3 - 4	118	16.1	25.4	11.0	47.5	100.0
High 5 - 7	186	9.2	12.3	7.0	71.5	100.0
Total	416	16.1	19.0	8.7	56.2	100.0

$$x^2 = 38.67 \quad df = 6 \quad p < .001 \quad \bar{C} = .371$$

TABLE XXII

THE RELATION OF HEAD'S PERCEPTION OF RELATIVE DEPRIVATION
TO LEVEL OF LIVING (COMMUNICATION ITEMS)
IN RURAL APPALACHIA

Level of Living (C.I.)	N	Deprived				Total
		Living Expenses	Housing & Communica- tion	Others	Not Deprived	
		1	2	3	4	
		----- % -----				
Low 1 - 2	114	23.7	21.1	10.5	44.7	100.0
Medium 3 - 4	191	16.8	18.8	8.9	55.5	100.0
High 5 - 7	111	7.2	17.1	6.3	69.4	100.0
Total	416	16.1	19.0	8.7	56.2	100.0

$$x^2 = 17.32 \quad df = 6 \quad p < .01 \quad \bar{C} = .254$$

four groups from most severely deprived to not deprived) of different level of living families. By employing Material Possessions scale as indicator for level of living, it was found that about three-fourths of heads in high level of living families thought that they were not deprived from daily necessities. Less than one-half of heads in medium level of living families thought that they were not deprived. Forty per cent of heads in low level of living families felt they were not deprived. Among those who felt they were deprived, nearly half of them in low level of living families thought they were deprived from living expenses, one-seventh of them felt they were deprived from those minor items (in a sense of existence) such as recreation, saving, and charity donation. One-third of the heads in high level of living families felt that they were deprived from living expenses, while one-fourth felt that they were deprived from minor items. By applying the Communication Items scale as the indicator for level of living, the relation between head's perception of deprivation and level of living remained essentially the same with only the proportion of those heads who felt not deprived in the medium level of living families showing a small increase. We may conclude, then, that the

head's perception of degree of less deprivation is positively related to level of living. The corrected coefficient of contingency for the relation of head's perception of deprivation to Material Possessions is .371 and to Communication Items is .254.

The results of the analysis of variance were consistent with the chi-square test. The assumption of linearity for both relationships was accepted.

Relation Between Desirability of Head's Job and Level of Living

Tables XXIII and XXIV contain the percentages for comparing the desirability of head's job (as classified in more, just, and less desirable) of different level of living families. By employing Material Possessions scale as the indicator of level of living, it was found that one-fourth of the heads in high level of living families felt that their job was more desirable than others in the same community, while only one-tenth of the heads of low level of living families had this same conviction. More than four-fifths of the heads in low level of living families thought that their jobs were just as desirable while 70 per cent of the heads in high level of living families agreed with this viewpoint.

TABLE XXIII
RELATIVE DESIRABILITY OF HEAD'S JOB TO LEVEL OF
LIVING (MATERIAL POSSESSIONS)
IN RURAL APPALACHIA

Level of Living (M.P.)	N	Relative Desirability of Head's Job			Total
		More Desirable	Just As Desirable	Less Desirable	
		1	2	3	
		----- % -----			
Low 1 - 2	73	11.0	82.1	6.9	100.0
Medium 3 - 4	73	22.0	72.5	5.5	100.0
High 5 - 7	144	25.6	69.5	4.9	100.0
Total	290	21.0	73.4	5.6	100.0

$$\chi^2 = 6.38$$

$$df = 2$$

$$P < .05$$

$$\bar{C} = .214$$

TABLE XXIV
RELATIVE DESIRABILITY OF HEAD'S JOB TO LEVEL
OF LIVING (COMMUNICATION ITEMS)
IN RURAL APPALACHIA

Level of Living (C.I.)	N	Relative Desirability of Head's Job			Total
		More Desirable	Just As Desirable	Less Desirable	
		1	2	3	
		----- % -----			
Low 1 - 2	61	13.1	80.4	6.5	100.0
Medium 3 - 4	147	17.7	75.5	6.8	100.0
High 5 - 7	82	32.9	64.6	2.5	100.0
Total	290	21.0	73.5	5.5	100.0

$$\chi^2 = 10.28$$

$$df = 2$$

$$p < .01$$

$$\bar{C} = .270$$



A very small proportion of heads in all three level of living families felt their jobs to be less desirable but those who did feel this way tended to be overrepresented in the low level of living families. By using Communication Items scale as indicator of level of living, the relation was changed very little. Only the proportion of those heads who felt their job to be most desirable in high level of living families showed a small increase.

In variance analysis, the null hypothesis that there is no relation between desirability of head's job and Material Possessions was rejected at .05 level while the hypothesis that there is no relation between desirability of head's job and Communication Items was accepted. The test for linearity showed the relation of the desirability of head's job to Material Possessions was linear.

Relation Between Sources of Head's Greatest Satisfaction and Level of Living

Tables XXV and XXVI contain the percentages for comparing the sources of head's greatest satisfaction (as classified into job and work, relation with families and kin, religion and other sources) of different level of living families. In Table XXVI it may be seen that 14 per cent of

TABLE XXV
SOURCES OF HEAD'S GREATEST SATISFACTION TO LEVEL
OF LIVING (MATERIAL POSSESSIONS)
IN RURAL APPALACHIA

Level of Living (M.P.)	N	Sources of Head's Greatest Satisfaction			Total
		<u>Job or Work</u>	<u>Relation with Family and Kin</u>	<u>Other Sources</u>	
		1	2	3	
		----- % -----			
Low 1 - 2	110	10.9	56.4	32.7	100.0
Medium 3 - 4	111	14.4	62.2	23.4	100.0
High 5 - 7	191	8.9	68.5	22.6	100.0
Total	412	10.9	63.6	25.5	100.0

$$\chi^2 = 6.75 \quad df = 4 \quad P > .10$$

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TABLE XXVI
SOURCES OF HEAD'S GREATEST SATISFACTION TO LEVEL
OF LIVING (COMMUNICATION ITEMS)
IN RURAL APPALACHIA

Level of Living (C.I.)	N	Sources of Head's Greatest Satisfaction			Total
		Job or Work	Relation with Family and Kin	Other Sources	
		1	2	3	
		----- % -----			
Low 1 - 2	107	9.3	53.3	37.4	100.0
Medium 3 - 4	188	13.8	64.9	21.3	100.0
High 5 - 7	118	7.6	70.4	22.0	100.0
Total	413	10.9	63.4	25.7	100.0

$$\chi^2 = 13.31$$

$$df = 4$$

$$P < .01$$

$$\bar{C} = .239$$

the heads in medium level of living families felt that their job and work was their source of greatest satisfaction while only 7 per cent of the heads in high level of living families selected this alternative. More than 70 per cent of the heads in high level of living families inclined to relation with families and kin as their source of greatest satisfaction while only one-half of heads in low level of living families recognized this as the source of their greatest satisfaction. About 40 per cent of the heads in low level of living families responded that they found religion and other minor items as the sources of greatest satisfaction while there was only about half of this percentage of heads in both medium and high level of living families thought in this same way. It may be concluded that (1) a comparatively larger proportion of heads in low level of living families had an inclination to religion, (2) a larger proportion of heads in high level of living families thought that the relation with families and kin was their source of greatest satisfaction, and (3) the percentage of heads that thought of job and work as the source of their greatest satisfaction was greatest for the medium level of living families.

The results of the variance analysis confirm the

chi-square results with the source of head's greatest satisfaction being related to Communication Items but not to Material Possessions. The test of linearity showed that the relation between sources of head's greatest satisfaction and Communication Items scale, according to our arrangement, was nonlinear rather than linear with a correlation ratio of .19.

III. SUMMARY

A summary of the results of this analysis is provided in Table XXVII. The relations are ordered in terms of decreasing $\bar{C}$ values which indicate the strength of the relations. The level of significance as a result of the chi-square computation is also indicated. The result of variance analysis listed to permit comparison with the chi-square test results with the corresponding significance level of each. The results of the tests for linearity is also shown in the table to provide a description of those relationships.

Sixteen null hypotheses were tested by both chi-square method and the analysis of variance. Four hypotheses were accepted. These were:

1. There is no relation between head's attitude toward job mobility and Material Possessions.

TABLE XXVII

SUMMARY OF SIGNIFICANCE AND STRENGTH OF RELATIONSHIPS BETWEEN
ATTITUDINAL VARIABLES AND LEVEL OF LIVING IN
CENTRAL APPALACHIA RURAL FAMILIES

Relationships	Chi-Square		Variance Analysis	
	Test		Testing	
	C	P	P	Linearity
Head's perception of deprivation to level of living (M.P.)	.371	<.001	<.001	Accept
Head's attitude toward borrowing to level of living (M.P.)	.335	<.001	<.001	Accept
Homemaker's anomia to level of living (M.P.)	.276	<.001	<.001	Accept
Homemaker's anomia to level of living (C.I.)	.271	<.001	<.001	Accept
Desirability of head's job to level of living (C.I.)	.270	<.01	>.05	-
Head's anomia to level of living (C.I.)	.255	<.01	<.001	Reject
Head's perception of deprivation to level of living (C.I.)	.254	<.01	<.01	Accept
Head's anomia to level of living (M.P.)	.241	<.01	<.001	Reject
Head's attitude toward borrowing to level of living (C.I.)	.240	<.02	<.01	Accept
Sources of head's greatest satisfaction to level of living (C.I.)	.239	<.01	<.05	Reject
Desirability of head's job to level of living (M.P.)	.214	<.05	<.05	Accept
Head's attitude toward most recent job to level of living (C.I.)	-	>.10	>.10	-
Head's attitude toward job mobility to level of living (C.I.)	-	>.10	<.05	Reject
Sources of head's greatest satisfaction to level of living (M.P.)	-	>.10	>.10	-
Head's attitude toward most recent job to level of living (M.P.)	-	>.30	>.50	-
Head's attitude toward job mobility to level of living (M.P.)	-	>.50	>.10	-

2. There is no relation between head's attitude toward most recent job and Material Possessions.

3. There is no relation between head's attitude toward most recent job and Communication Items.

4. There is no relation between sources of head's greatest satisfaction and Material Possessions.

Two of them were not rejected by one test but were rejected by the other. These were:

1. There is no relation between head's attitude toward job mobility and Communication Items (accepted by chi-square test).

2. There is no relation between desirability of head's job and Communication Items (accepted by variance analysis).

To summarize the evidence, there is reason to doubt that there is a relation between head's attitude toward most recent job and level of living and between head's attitude toward job mobility and level of living in the Appalachia rural families. For the other two, the relations are obscure to some extent. From the ten rejected hypotheses shown in Table XXVII it can be interpreted that (1) the relation between head's perception of deprivation and level of living

is a strong one, (2) that anomia is related to level of living, (3) that there is a relation between head's attitude toward borrowing and level of living, and (4) that there is a relation between the desirability of the head's job and level of living. In addition, some doubt is cast upon the relation between sources of head's greatest satisfaction and level of living since the relation was present only when the Communication Items scale was used.

CHAPTER V

DIFFERENCE IN THE RELATION OF SEVEN ATTITUDINAL VARIABLES WITH LEVEL OF LIVING FOR OTHER SOUTH RURAL FAMILIES AS COMPARED WITH APPALACHIA FAMILIES

I. INTRODUCTION

The previous chapter has explored the relation between seven attitudinal variables and level of living in Appalachia rural families. In this chapter, the attempt is made to compare those relationships found in the preceding chapter with similar relationships assumed to exist for the rural families of the Other South.

In designing the analysis, it was found that a large proportion of the sample of rural families of the Other South was nonwhite. Among the Appalachia sample, 99 per cent of the households were white (only 5 nonwhite families in a total of 521 households). Since the sociocultural and economic background between white and nonwhite people appears to be so different, it was felt that it would be desirable to separate the nonwhite from the white in the Other South

families and to compare each of these groups with the Appalachia families. In the following analysis, 521 Appalachia rural families, 853 Other South White rural families, and 498 Other South Nonwhite rural families comprise the sample from which data were obtained. The color identification of thirty-six families was not available so they have been omitted from this analysis.

To permit the correlation analysis, scores and categories of level of living and attitudinal variables assigned for those Other South families were numbered in the same way as had been done for the Appalachia families. Correlation coefficients were calculated and a test was made of the null hypothesis of no variability in the relation of seven selected attitudinal variables with level of living for the Other South White and Nonwhite families as compared with the Appalachia families.

II. REGIONAL AND RACIAL VARIABILITY OF RELATIONSHIPS BETWEEN ATTITUDINAL VARIABLES AND LEVEL OF LIVING

Variability of Relation in Appalachia and Other South White Families

The test of significance of correlation coefficients proceeded in two stages. First, the correlation

coefficients of the seven attitudinal variables with level of living for both Appalachia rural families and Other South White families were tested for significance. The null hypothesis was that each of these was from a population with a correlation coefficient $\rho = 0$. The second step was a comparison of the relationship existing for the Appalachia rural families with the same relationships assumed in the Other South White families. A test was made of the null hypothesis of no difference in the correlation coefficients ($\rho_1 = \rho_2$) to determine whether there was any significant difference and variability between these pairs of correlation coefficients. An illustration of the detailed computational procedures is provided in Appendix C.

The results of these tests are contained in Table XXVIII and the relationships have been classified into four different groups, as follows:

Group I. The relation of the attitudinal variable to level of living was significant in Appalachia or the Other South but not in both. ($\rho_1 \neq \rho_2$; where $\rho_1 = 0$ or $\rho_2 = 0$)

1. Attitude toward job mobility was found to be negatively related to level of living (C.I.) for Other South

TABLE XXVIII

COMPARISON OF VARIABILITY OF CORRELATION COEFFICIENTS OF SEVEN ATTITUDINAL
VARIABLES TO LEVEL OF LIVING FOR OTHER SOUTH WHITE RURAL
FAMILIES WITH APPALACHIA FAMILIES

Variability of Relationships	Level of Living									
	Material Possessions					Communication Items				
	Scale					Scale				
	Appalachia	South White	Other	Appalachia	South White	Appalachia	South White	Other	Appalachia	South White
	N	r	N	r	N	N	r	N	N	r
GROUP I $\rho_1 \neq \rho_2$ ($\rho_1=0$, or $\rho_2=0$)										
Head's attitude toward job mobility					298		-.08	429		-.18
Head's attitude toward borrowing	417	.23	634	.04						
Sources of head's greatest satisfaction	413	-.07	624	-.09						
GROUP II $\rho_1 \neq \rho_2 \neq 0$										
Head's anomia					417		-.20	636		-.32
Head's perception of deprivation	416	.32	641	.43	416		.20	641		.32
GROUP III $\rho_1 = \rho_2 \neq 0$										
Head's anomia	417	-.21	636	-.30						
Homemaker's anomia	492	-.22	802	-.27	492		-.22	802		-.27
Head's attitude toward borrowing					417		.17	634		.14
Desirability of head's job	290	-.16	465	-.16	290		-.17	465		-.18
GROUP IV $\rho_1 = \rho_2 = 0$										
Head's attitude toward most recent job	256	-.02	433	.02	256		-.05	433		.05

White families but not for those in Appalachia.

2. Head's willingness to borrow was found to be related to level of living (M.P.) for the Appalachia families but not for White families in the Other South.

3. Sources of head's greatest satisfaction was found to be related to level of living (M.P.) for the Other South White families but not for those in Appalachia.

Group II. The relation of the attitudinal variable to level of living was significant in both areas but the strength of the relationship differed. ($\rho_1 \neq \rho_2 \neq 0$)

1. The relation of the head's anomia to level of living (C.I.) was significant and negative for both the Appalachia and Other South White rural families but it was stronger for the Other South White.

2. The relation of the head's perception of relative deprivation to level of living (M.P.) was significant for both Appalachia and Other South White rural families but it was stronger for the Other South White.

3. The relation of the head's perception of relative deprivation to level of living (C.I.) was significant for both Appalachia and Other South White rural families but it

was stronger for the Other South White.

Group III. The relation of the attitudinal variable to level of living was significant in both areas with no difference in the strength of the relation. ($\rho_1 = \rho_2 \neq 0$)

1. Head's anomia was negatively related to level of living (M.P.) in the same strength for both Appalachia and Other South White rural families.

2. Homemaker's anomia was negatively related to level of living (M.P.) in the same strength for both Appalachia and Other South White rural families.

3. Homemaker's anomia was negatively related to level of living (C.I.) in the same strength for both Appalachia and Other South White rural families.

4. Head's attitude toward borrowing was related to level of living (C.I.) in the same strength for both Appalachia and Other South White rural families.

5. Desirability of head's job was related to level of living (M.P.) in the same strength for both Appalachia and Other South White rural families.

6. Desirability of head's job was related to level of living (C.I.) in the same strength for both Appalachia

and Other South White rural families.

Group IV. No significant relation was found to exist between the attitudinal variable and level of living in either area. ($\rho_1 = \rho_2 = 0$)

1. Head's attitude toward most recent job was not related to level of living (M.P.) for either the Appalachia or the Other South White rural families.

2. Head's attitude toward most recent job was not related to level of living (C.I.) for either the Appalachia or the Other South White rural families.

Note. The omission of two relationships (head's attitude toward job mobility vs. Material Possessions and sources of head's greatest satisfaction vs. Communication Items) was due to the contradictory results of the test of significance of correlation coefficients for Appalachia rural families in these two relationships relative to that which was found in the chi-square test and the analysis of variance.

Variability of Relation in Appalachia
and Other South Nonwhite Families

The testing method employed in this section was the same one as applied for the above analysis. The results of

the significance tests of correlation coefficients concerning the attitudinal variables to level of living for Appalachia rural families and Other South Nonwhite families are contained in Table XXIX and the relationships have been classified in three different groups, as follows:

Group I. The relation of the attitudinal variable to level of living was significant in Appalachia or the Other South but not in both. ($\rho_1 \neq \rho_2$; where $\rho_1 = 0$ or $\rho_2 = 0$)

1. Head's anomia was found to be negatively related to level of living (M.P.) for the Appalachia rural families but not for Nonwhite families in the Other South.

2. Head's anomia was found to be negatively related to level of living (C.I.) for the Appalachia rural families but not for Nonwhite families in the Other South.

3. Homemaker's anomia was found to be negatively related to level of living (M.P.) for the Appalachia rural families but not for Nonwhite families in the Other South.

4. Head's attitude toward borrowing was found to be related to level of living (M.P.) in the Appalachia rural families but not for Nonwhite families in the Other South.

5. Head's attitude toward borrowing was found to be

TABLE XXIX

COMPARISON OF VARIABILITY OF CORRELATION COEFFICIENTS OF SEVEN ATTITUDINAL
VARIABLES TO LEVEL OF LIVING FOR OTHER SOUTH NONWHITE RURAL
FAMILIES WITH APPALACHIA FAMILIES

Variability of Relationships	Level of Living									
	Material Possessions					Communication Items				
	Scale					Scale				
	Appalachia		Other South Nonwhite			Appalachia		Other South Nonwhite		
	N	r	N	r		N	r	N	r	
GROUP I $\rho_1 \neq \rho_2$ ($\rho_1=0$, or $\rho_2=0$)										
Head's anomia	417	-.21	372	-.05		417	-.20	371		-.05
Homemaker's anomia	492	-.22	449	-.04						
Head's attitude toward borrowing	417	.23	372	.07		417	.17	371		-.03
GROUP II $\rho_1 = \rho_2 \neq 0$										
Homemaker's anomia						492	-.22	448		-.12
Head's perception of deprivation	416	.32	388	.28		416	.20	388		.16
Desirability of head's job	290	-.16	293	-.20		290	-.17	293		-.18
GROUP III $\rho_1 = \rho_2 = 0$										
Head's attitude toward job mobility						298	-.08	274		-.04
Head's attitude toward most recent job	256	-.02	278	.06		256	-.05	278		-.03
Sources of head's greatest satisfaction	413	-.07	370	-.01						

related to level of living (C.I.) in the Appalachia rural families but not for Nonwhite families in the Other South.

Group II. The relation of the attitudinal variable and level of living was significant in both areas with no difference in the strength. ($\rho_1 = \rho_2 \neq 0$)

1. Homemaker's anomia was negatively related to level of living (C.I.) in the same strength for both Appalachia and Other South Nonwhite families.

2. Head's perception of relative deprivation was related to level of living (M.P.) in the same strength for both Appalachia and Other South Nonwhite families.

3. Head's perception of relative deprivation was related to level of living (C.I.) in the same strength for both Appalachia and Other South Nonwhite families.

4. Desirability of head's job was related to level of living (M.P.) in the same strength for both Appalachia and Other South Nonwhite families.

5. Desirability of head's job was related to level of living (C.I.) in the same strength for both Appalachia and Other South Nonwhite families.

Group III. No significant relation was found to exist between the attitudinal variable and level of living in either area. ($\rho_1 = \rho_2 = 0$)

1. Head's attitude toward job mobility was not related to level of living (C.I.) for either the Appalachia or the Other South Nonwhite rural families.

2. Head's attitude toward most recent job was not related to level of living (M.P.) for either the Appalachia or the Other South Nonwhite rural families.

3. Head's attitude toward most recent job was not related to level of living (C.I.) for either the Appalachia or the Other South Nonwhite rural families.

4. Sources of head's greatest satisfaction was not related to level of living (M.P.) for either the Appalachia or the Other South Nonwhite rural families.

III. SUMMARY

This chapter was designed to compare the relationships of seven attitudinal variables to level of living for Appalachia rural families with the same relationships for Other South White and Nonwhite rural families.

The statistical method of testing the significance of correlation coefficients was employed.

The Appalachia rural families differed from the Other South White families in these relationships:

1. Head's attitude toward job mobility to level of living (C.I.)
2. Head's attitude toward borrowing to level of living (M.P.)
3. Sources of head's greatest satisfaction to level of living (M.P.)

The Appalachia rural families were found to be different from the Other South Nonwhite families in these relationships:

1. Head's anomia to level of living (M.P. and C.I.)
2. Homemaker's anomia to level of living (M.P.)
3. Head's attitude toward borrowing to level of living (M.P. and C.I.)

CHAPTER VI

SUMMARY AND CONCLUSIONS

I. SUMMARY

The purposes of this study were (1) to summarize the general data dealing with level of living in the rural area of central Appalachia, (2) to analyze the relation between selected attitudinal factors and level of living in this area, and (3) to compare the relationships found in (2) in rural Appalachia with similar relationships in low-income rural area of the Other South.

A brief review of the literature showed that level of living has been studied intensively for a long time. Scaling methods for measuring level of living have been widely employed in recent years. The relation of level of living to attitudes has been studied but not extensively explored.

Data for the study were obtained from a 1960-61 survey of 1,908 households in seven southern states.

Material Possessions and Communication Items scales were employed as two indicators of level of living in this

study. The seven attitudinal variables selected for inclusion in the study were anomia, head's attitude toward job mobility, head's attitude toward borrowing, head's attitude toward most recent job, head's perception of relative deprivation, desirability of head's job, and sources of head's greatest satisfaction.

A general description of the level of living and selected attitudinal variables of central Appalachia rural families was made. It was found that a large proportion of these rural families ranked in the low level of living category. High anomia prevailed among both heads and homemakers. A large proportion of heads were conservative in their attitude toward borrowing and felt that there were some things they really needed but could not afford because of lack of money. Three out of four of them were willing to make some sacrifice in order to improve their income. They also tended to have a favorable attitude toward their most recent job and to feel that their job was at least as desirable as most jobs held by others in the community. Most of them indicated that their greatest satisfaction came from their relations with family and kin.

By employing the Material Possessions scale as the

indicator of level of living, it was found in Appalachia rural families that four of the seven attitudinal variables were related to level of living, including the following:

1. Head's perception of relative deprivation.
2. Head's attitude toward borrowing.
3. Anomia.
4. Desirability of head's job.

By employing the Communication Items scale as the indicator of level of living, five of the same selected attitudinal variables were found to be related to level of living, including the following:

1. Anomia.
2. Desirability of head's job.
3. Head's perception of relative deprivation.
4. Head's attitude toward borrowing.
5. Source of head's greatest satisfaction.

Tables XXX and XXXI provide a summary of the comparisons of the relationship of the attitudinal variables to level of living (using both Material Possessions and Communication Items scales as indicators) between the Appalachia and the Other South White rural families and between the Appalachia and the Other South Nonwhite rural families. Generally

TABLE XXX

COMPARISON OF RELATIONSHIP SHOWING ATTITUDINAL VARIABLES TO LEVEL OF LIVING
(MATERIAL POSSESSIONS) AMONG APPALACHIA, OTHER SOUTH WHITE,
AND OTHER SOUTH NONWHITE RURAL FAMILIES

Attitudinal Characteristics	Relation to Level of Living (Material Possessions)		
	Appalachia	South White	Other South Nonwhite
Anomia - heads	present	present	absent
Anomia - homemakers	present	present	absent
Head's attitude toward borrowing	present	absent	absent
Head's perception of deprivation	present	present	present
Desirability of head's job	present	present	present
Head's attitude toward most recent job	absent	absent	absent
Sources of head's greatest satisfaction	absent	present (weak)	absent

TABLE XXXI

COMPARISON OF RELATIONSHIP SHOWING ATTITUDINAL VARIABLES TO LEVEL OF LIVING
(COMMUNICATION ITEMS) AMONG APPALACHIA, OTHER SOUTH WHITE,
AND OTHER SOUTH NONWHITE RURAL FAMILIES

Attitudinal Characteristics	Relation to Level of Living (Communication Items)		
	Appalachia	Other South White	Other South Nonwhite
Anomia - heads	present	present (strong) *	absent
Anomia - homemakers	present	present	present (weak)
Head's attitude toward borrowing	present	present	absent
Head's perception of deprivation	present	present * (strong)	present
Desirability of head's job	present	present	present
Head's attitude toward most recent job	absent	absent	absent
Head's attitude toward job mobility	absent	present (weak)	absent

* Compare to other relations in the same row.

speaking, the relation of the seven selected attitudinal characteristics to level of living does not differ for the Other South White rural families as compared with the Appalachia families, while the relations for the Other South Non-white families do differ in the areas of head's anomia, of homemaker's anomia, and of head's attitude toward borrowing.

II. CONCLUSIONS

This study has focused upon the low income rural families in Appalachia to find whether the relationship of level of living to each of the seven selected attitudinal characteristics was significant. The relation of level of living to anomia was clearly shown by all the tests and the analysis and the higher level of living was found to be associated with lower anomia for both heads and homemakers. High level of living of these rural families tended to be positively related to the willingness of the heads in the attitude toward borrowing. The heads of those families ranking high in level of living scores more frequently have a feeling that they are not deprived from daily necessities for a lack of money, and think that their job is more desirable compared to the other persons in the community.

Household heads living in high level of living families are apt to think that relations with family and kin provide their main source of satisfaction to a greater extent than those living in medium or low level of living families. A comparatively larger proportion of heads in medium level of living families prefer their job or work as the source of greatest satisfaction and heads in low level of living families seem to be more inclined to religion. This indicates that people of the more anomic group tended to find consolation from religion while low anomic people find greater satisfaction in family life and people with medium anomia scores get their rewards from their job or work. No evidence was found in the present study that level of living has a definite relation to head's attitude toward most recent job or to head's attitude toward job mobility. In other words, people in different level of living families have no difference in the attitudes whether they like their recent job or in their willingness to make some sacrifice in order to improve their income. Those White rural people living in the Other South differed very insignificantly in these relationships compared to those living in Appalachia, while the Nonwhite rural people of the Other South did differ from the Appalachia people

in the relationships of level of living to anomia and to attitude toward borrowing.

CHAMBERS STREET

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APPENDIX A



UNIVERSE AND SAMPLE AREA

ALABAMA

<u>Stratum</u>	<u>County</u>		
I ^o	Houston	Butler	Barbour
	Covington	Crenshaw	Russell
	Escambie	Coffee	Randolph
	*Monroe	Henry	*Tallapoosa
	Conecuk		

<u>Stratum</u>	<u>County</u>		
II ^o	Macon	Choctaw	Hale
	Bullock	Sumter	Greene
	*Montgomery	Marengo	Pickens
	Lowndes	Wilcox	Fayette
	*Clarke	Dallas	Winston
	Washington	Perry	Jackson

KENTUCKY

<u>Stratum</u>	<u>County</u>		
III ^a	Cumberland	*Whitley	Letcher
	Clinton	Knox	Pike
	Wayne	Bell	Floyd
	McCreary	*Harlan	

<u>Stratum</u>	<u>County</u>		
IV ^a	Knott	Rockcastle	Jognson
	*Perry	Estill	Morgan
	Leslie	Lee	Rowan
	Clay	*Wolfe	Elliott
	Owsley	Breathitt	Lawrence
	Jackson	Magoffin	

LOUISIANA

<u>Stratum</u>	<u>County</u>		
V ^o	Washington	*Livingston	West Feli-
	St. Helena	*East Feliciana	ciana

<u>Stratum</u>	<u>County</u>		
VI ^o	St. Landry	*Franklin	Red River
	Evangeline	Catahoula	Morehouse
	Avoyelles	*Natchitouches	West
	Concordia		Carroll

<u>Stratum</u>	<u>County</u>		
VII ^o	**Union	Winn	Grant
	DeSoto	Caldwell	Sabine
	Bienville		

CRANESE CREST

NORTH CAROLINA

<u>Stratum</u>	<u>County</u>		
VIII ^a	**Ashe	Yancey	Cherokee
	Watauga	Madison	Clay
	Avery	Swain	Macon
	Mitchell	Craham	
<u>Stratum</u>	<u>County</u>		
IX ^o	Polk	Cumberland	New Hanover
	*Anson	Bladen	Pender
	Scotland	Columbus	Duplin
	*Robeson	Brunswick	Onslow
	Hoke		

TENNESSEE

<u>Stratum</u>	<u>County</u>		
X ^a	Stewart	Morgan	Johnson
	Clay	Scott	Unicoi
	Overton	*Union	Grainger
	Pickett	Claiborne	Cumberland
	Fentress	*Hancock	
<u>Stratum</u>	<u>County</u>		
XI ^o	White	Warren	Sequatchie
	Putnam	Van Buren	Grundy
	*Houston	Bledsoe	Lawrence
	*Humphreys	Cocke	Lewis
	Perry	Sevier	Wayne

TEXAS

<u>Stratum</u>	<u>County</u>		
XII ^o	Bowie	Morris	Harrison
	Red River	*Cass	*Upshur
	Franklin	Marion	Rains
	Titus		

TEXAS (Continued)

<u>Stratum</u>	<u>County</u>		
XIII ^o	Henderson	San Augustine	San Jacinto
	Freestone	Sabine	Trinity
	Leon	*Newton	Walker
	Houston	Polk	*Burleson
	Cherokee		

MISSISSIPPI

<u>Stratum</u>	<u>County</u>		
XIV ^o	Benton	*Clay	Attala
	Marshall	Oktibbeha	*Holmes
	Tate	Noxubee	Yazoo
	Yalobusha	Winston	Madison
	Calhoun	Choctaw	Leake
	Chickasaw		

<u>Stratum</u>	<u>County</u>		
XV ^o	*Neshoba	Simpson	*Lawrence
	Kemper	Smith	Jefferson
	Newton	Jasper	Adams
	Hinds	Clarke	Wilkerson
	Claiborne	Wayne	Amite
	Copiah	Jefferson Davis	

<u>Stratum</u>	<u>County</u>		
XVI ^o	*Tunica	Quitman	Leflore
	*Coahoma	Tallahatchie	Sharkey

^aIndicates Appalachia.

^oIndicates other South.

*Indicates the counties selected.

**Indicates county selected twice.



APPENDIX B

ANALYSIS OF VARIANCE SUMMARIES SHOWING THE RELATION
BETWEEN ATTITUDINAL VARIABLES AND LEVEL OF LIVING
IN CENTRAL APPALACHIA RURAL FAMILIES

A. RELATION TO LEVEL OF LIVING (M.P.)

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>
<u>Head's Anomia</u>				
Between columns	118.483	6	19.747	5.899***
Within columns	1372.495	410	3.348	
Total	1490.978	416		
Linear regression	63.990	1	63.990	
Dev. from regression	54.493	5	10.899	3.256**
Non-linear correlation ratio	0.2819			
<u>Homemaker's Anomia</u>				
Between columns	131.955	6	21.993	5.530***
Within columns	1928.994	485	3.977	
Total	2060.949	491		
Linear regression	102.499	1	102.499	
Dev. from regression	29.457	5	5.891	1.481
<u>Head's Attitude Toward Job Mobility</u>				
Between columns	61.635	6	10.273	1.636
Within columns	1827.429	291	6.280	
Total	1889.064	297		

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Square</u>	<u>F</u>
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Head's Attitude Toward Borrowing

Between columns	26.042	6	4.340	5.204***
Within columns	341.949	410	0.834	
Total	367.990	416		
Linear regression	19.167	1	19.167	
Dev. from regression	6.874	5	1.375	1.649

Head's Attitude Toward Most Recent Job

Between columns	2.101	6	0.350	0.600
Within columns	145.301	249	0.584	
Total	147.402	255		

Head's Perception of Relative Deprivation

Between columns	63.020	6	10.503	8.310***
Within columns	516.920	409	1.264	
Total	579.940	415		
Linear regression	60.632	1	60.632	
Dev. from regression	2.388	5	0.478	0.378

Desirability of Head's Job

Between columns	3.292	6	0.549	2.327*
Within columns	66.725	283	0.236	
Total	70.017	289		
Linear regression	1.734	1	1.734	
Dev. from regression	1.558	5	0.312	1.321

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Squares</u>	<u>F</u>
<u>Head's Greatest Satisfaction</u>				
Between columns	2.371	6	0.395	1.149
Within columns	139.620	406	0.344	
Total	141.990	412		

B. RELATION TO LEVEL OF LIVING (C.I.)

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Squares</u>	<u>F</u>
Between columns	105.725	6	17.621	5.215***
Within columns	1385.254	410	3.379	
Total	1490.978	416		
Linear regression	57.374	1	57.374	
Dev. from regression	48.351	5	9.670	2.862*
Non-linear correlation ratio	0.2663			

Homemaker's Anomia

Between columns	118.033	6	19.672	4.911***
Within columns	1942.916	485	4.006	
Total	2060.949	491		
Linear regression	99.513	1	99.513	
Dev. from regression	18.520	5	3.704	0.925

Head's Attitude Toward Job Mobility

Between columns	98.592	6	16.432	2.671*
Within columns	1790.472	291	6.153	
Total	1889.064	297		

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Squares</u>	<u>F</u>
<u>Head's Attitude Toward Job Mobility (continued)</u>				
Linear regression	12.219	1	12.219	
Dev. from regression	86.373	5	17.275	2.808*
Non-linear correlation ratio	0.2285			

<u>Head's Attitude Toward Borrowing</u>				
Between columns	16.602	6	2.767	3.229**
Within columns	351.388	410	0.857	
Total	367.990	416		
Linear regression	10.340	1	10.340	
Dev. from regression	6.262	5	1.252	1.461

<u>Head's Attitude Toward Most Recent Job</u>				
Between columns	4.950	6	0.825	1.442
Within columns	142.453	249	0.572	
Total	147.402	255		

<u>Head's Perception of Relative Deprivation</u>				
Between columns	30.577	6	5.096	3.794**
Within columns	549.362	409	1.343	
Total	579.940	415		
Linear regression	23.298	1	23.298	
Dev. from regression	7.280	5	1.456	1.084

<u>Source of Variation</u>	<u>Sum of Squares</u>	<u>DF</u>	<u>Mean Squares</u>	<u>F</u>
<u>Desirability of Head's Job</u>				
Between columns	2.766	6	0.461	1.940
Within columns	67.251	283	0.238	
Total	70.017	289		
<u>Head's Greatest Satisfaction</u>				
Between columns	5.065	6	0.844	2.503*
Within columns	136.925	406	0.337	
Total	141.990	412		
Linear regression	0.298	1	0.298	
Dev. from regression	4.768	5	0.954	2.827*
Non-linear correlation ratio	0.1889			

NOTE: *Significant at .05 level
 **Significant at .01 level
 ***Significant at .001 level

APPENDIX C



COMPUTATIONS FOR TESTING SIGNIFICANCE OF CORRELATION COEFFICIENTS

I. Symbols

ρ : correlation coefficient of population.

r : correlation coefficient of sample.

n : total number of pairs (heads or homemakers vs. families)

z : the standard normal random variable

$$z = \frac{\bar{x} - \mu}{\sigma}$$

u : statistic or random variable computed from a sample and assumed to have a normal distribution.

α : significance level

C.R.: critical region.

II. Computational Procedures

An illustration of certain computational procedures for testing the significance of the correlation coefficients presented in Table XXIX is given below:

1. Correlation coefficient for head's anomia to Communication Items in Appalachia rural families $r_1 = -.20$

$n = 417$

$H_0: \rho_1 = 0$ $\alpha = .05$ or $.01$ two-tailed test

C.R. $|u| > 1.96$ (for $.05$ level) or

$|u| > 2.58$ (for $.01$ level)

$$u_0 = r\sqrt{n-1} = -4.08$$

Reject H_0 either at .05 or .01 level.

We concluded that r_1 is not from a population $\rho_1 = 0$

2. Correlation coefficient for head's anomia to Communication Items in other South white rural families

$$r_2 = -.32$$

Use same procedure as above we rejected $H_0: \rho_2 = 0$

We concluded that r_2 is not from a population $\rho_2 = 0$

3. Correlation coefficient for head's anomia to Communication Items in Appalachia rural families

$$r_1 = -.20$$

Correlation coefficient for head's anomia to Communication Items in other South white rural families

$$r_2 = -.32$$

Convert each r to z value, the relation of z to r is given by

$$z = \frac{1}{2} \left[\log_e(1+r) - \log_e(1-r) \right]$$

$$n_1 = 417, \quad n_2 = 636$$

$$H_0: \rho_1 = \rho_2 \quad \alpha = .05 \text{ or } .01 \quad \text{two-tailed test}$$

$$\text{C.R. } |u| > 1.96 \text{ or } |u| > 2.58$$

$$u_0 = \frac{z_1 - z_2}{\sqrt{\frac{1}{n_1-3} + \frac{1}{n_2-3}}} = \frac{.1289}{.0632} = 2.04$$

Reject H_0 at .05 level of significance.

We concluded $\rho_1 \neq \rho_2 \neq 0$

Table of 5 per cent and 1 per cent points for r and
Table of z for values r have been already computed by
statisticians and are available in many statistics
textbooks or can be found in those pamphlet tables
compiled for statisticians.

