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ABSTRACT

Use of five agencies offering adult education, vocational rehabilitation, food stamps, employment, and health services in Orangeburg County by rural poor people in Bowman, Elloree, and North was studied over a two-year period. The study examined whether communication, transportation, or both increased agency use. In Bowman, information about the agencies was offered; transportation to and from the agencies was offered in Elloree; and in North, both were offered. Flyers from the agencies and specific releases presenting data in capsule, simplified form were distributed to churches, civic and social organizations, and community centers in Bowman and North. Videotape film schedules were posted in businesses and public places where people congregated. Transportation notices, posters, and announcements were distributed at strategic places in Elloree and North. A sample randomly selected from predominantly black neighborhoods in Bowman and North was also interviewed. It was found that transportation produced no effects while communication produced a significant, patterned effect for two of the five agencies. The additional survey revealed a marked discrepancy between agency use figures and reported use of agency services, and a dissatisfaction with the distribution of agency services. (NQ)

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EFFECTS OF COMMUNICATION AND TRANSPORTATION  
ON UTILIZATION OF AGENCY SERVICES  
BY RURAL POOR PEOPLE IN SOUTH CAROLINA

by

Marquerite Rogers Howie and Kathleen Hanna

In Cooperation with Clemson University

and the

Cooperative State Research Service, USDA

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ABSTRACT

Use of five agencies in Orangeburg County by rural poor people in three small towns in the county was studied over a two-year period. In one town the subjects were offered information about the agencies; in one they were offered transportation to and from the agencies; and in the third they were offered both. The remaining towns were used as a control group. Transportation produced no effects; communication produced a significant, patterned effect for two of the five agencies. An additidual survey revealed (1) a marked discrepancy between agency utilization figures and reported use of agency services and (2) a presence of dissatisfaction with the distribution of agency services.

## INTROOUCTION

### Rationale

It is a sociological axiom that a society cannot maximize the use of its potential resources if large portions of that society are poverty-stricken, illiterate, ill and unemployed. Children growing up in these surroundings are denied the right to the full expression of their human potential and have little contribution to make to society as adults.

Since poverty has become a question of national policy, much attention has been given to creating programs directed to health, education and housing. Much program development has been based on a priori notions of poverty with little preliminary research and no follow-up. What research has been published has been done primarily on urban poverty, an altogether different situation from rural poverty.

As a result, agencies have been established, services set up, programs funded; and still people do not seem to fully respond. In a survey administered in 1970 by South Carolina State College faculty members, Marguerite R. Howie and Ruby C. Sulton, in collaboration with the Orangeburg County Consumer Health Council, it was found that half of a random sample of families in eight rural communities in Orangeburg County was receiving less than the poverty-level income of \$3,000. Nevertheless, only 5 percent of those families interviewed were receiving welfare assistance and only 15 percent were on food stamps.

If programs and agencies are to be effective, they must be utilized. If they are not, it is vital to know why they are not being utilized. That is

one of the purposes of this research.

Secondly, criticisms that have been leveled at the federal outreach programs point out that the techniques and methods in use generally fail to attract and reach the rural poor, that they are, in the main, geared to the attitudes and culture of the middle class.

Review of the Literature

While a number of articles have been written covering the adoption of new farming and health practices by various strata of rural people (Gross, 1949; Coleman, 1951; Gross, et al, 1952; Belcher, 1958; Fliegel, 1960; Wilkening, 1962; Conklin and Hardy, 1964; Stuart, 1972), these studies are not particularly relevant to the question at hand; namely, how to motivate effectively the rural poor to take advantage of existing services. Either the authors did not check for class differential or, if they did, they concluded that the less educated, the poor and the isolated tend not to use existing services, while the better educated, wealthier and socially participating tend to use them. A body of theoretical literature on the diffusion of social change is abundant, (for example, Lionberger, 1960; Rogers, 1962; Leagans and Loomis, 1971; Rogers, 1971), but techniques, experimental evidence, behavioral measures and specific hypotheses seem strangely absent.

Indeed, effectiveness seems to be an uninteresting topic to the researchers on planned social change in rural areas. Some tangential consideration is given to changing the poor by Fliegel, 1960; Alleger, 1962; Marris and Rein, 1967; Bryan and Bertrand, 1970; Hazen and Cordes, 1947; and delivery systems are spottily treated in the literature with Carruthers and Urquhart contending that



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"the distance from the origin of need to the point(s) from which the associated service emanates definitely will influence its utilization."<sup>1</sup> Although they recognize that "other important influences involve the institutional characteristics of the community in which the service is rendered, transportation and communication systems, etc.,"<sup>2</sup> the role of these last two factors in directed social change remains largely unexplored.

Peripheral consideration is given to agency utilization via research on rural poverty (O'Reilly, 1968; Grecink and Steptoe, 1970; McElevan, 1971; Thomas, 1972; Briggs, 1973); quality of life (Lidstrom, 1961; Haddox, 1965; Boyd and Morgan, 1966; McCoy, 1974; McLean, 1974; Steelman, 1974; Workshop on Improved Rural Living on Limited Resources, 1974), the politics of poverty (Ford, 1973), and widespread nutrition research (Lantis, 1962; Arizona Department of Welfare, 1972; De Chavez, 1972; Green, et al, 1974) including numerous ongoing district, county, state, regional and national projects.<sup>3</sup>

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<sup>1</sup>Garrey Carruthers and N. Scott Urquhart, "Some Methodological Consideration for Rural Community Services Research: A Report from W-114," paper presented at the National Workshop of Delivery of Community Services in Rural Areas, Lincoln, Neb., 14 December 1971 (Mimeographed), p. 9.

<sup>2</sup>Ibid.

<sup>3</sup>See "Rural Development Research at Land-grant Institutions in the South," prepared by the Southern Rural Development Center, Mississippi State, Miss., 1974, Matrix 2.03 passim and Charles O. Crawford, "Some Relevant Concerns and Issues in Research on Personal Health Delivery System with Special Emphasis on Nonmetropolitan Areas," paper presented at the National Workshop on Delivery of Community Services in Rural Areas, Lincoln, Neb., 15 December 1971 (Mimeographed), pp. 4-5.

However, the literature does not reveal any studies which have addressed themselves to the effect communication and/or transportation may have on the utilization of agency services by the rural poor. Moreover, if these intervening variables are not proven to be causal factors determining the extent of agency usage by a major sector of the population which agencies are designed to serve, what then are probable factors affecting the underutilization of agency services by any category of persons, in this instance, the rural poor? The sparsity of the research data in the areas of communication and transportation and their relationship to human behavior and attitudinal change make viable a study to ascertain the dimensions of their import.

#### Hypotheses

It is a commonly expressed sentiment among agency personnel and lay persons that the rural poor underutilize agency services to which they are entitled. The cause: (a) they are unaware that these services are available; and (b) they have no transportation by which to travel to the agencies providing the services. As a survey of the literature indicates, these hypotheses have not been explicitly tested and are therefore subject to uncritical assimilation by policymakers, researchers and the public. Our purpose in conducting this study is to test the following hypotheses:

1. Communication alone will increase agency utilization, if not significantly, at least in that direction.
2. Transportation alone will increase agency utilization, if not significantly, at least in that direction.
3. Communication and transportation together will significantly increase agency utilization.

If none of these hypotheses is supported, then we may assume that neither communication nor transportation is a major factor in the use of agency services

by rural poor people, and that some other factors or set of factors is operative.

### Method

#### A. Operational Definitions

By communication here is meant the imparting of information. For this purpose, we designed and filmed videotapes covering such agency services as Food Stamps, Farmer's Home Administration, Vocational Rehabilitation, Health Department, Adult Education and Employment Security Commission. Agency personnel were introduced, and they presented information on how to obtain the services offered by their agency. These films were then shown in rural churches and community centers.

By transportation is meant the providing of mini-bus services between conveniently situated pick-up stations and agency centers, many of which are located as far as thirty miles apart.

#### B. Design

The experimental plan was a modified panel design with three experimental treatment variables: communication, transportation and a combination of the two. Three towns of comparable population and composition were selected: Bowman, Ellore and North, South Carolina. To avoid contamination, no town was closer than thirty miles to any other town, a distance which, to persons lacking transportation, is sufficient to discourage prolonged relationships and extended kinship ties. Bowman received communication, only; Ellore received transportation, only; and North received both communication and transportation.

The following chart summarizes the research design used over the course of two years.

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Time* (months)	Attitudinal Measures	Intervening Variables	Behavioral Measures
	In-depth Interview Pretest		Check Figures Agency Utili- zation Numbers
6-12		Development of Com- munication Modules	
12-18		Communication Pre- sentations	
18-24		Transportation and Communication	
24	In-depth Interview Post Test	Remove Transporta- tion and Communica- tion	Check Figures Agency Utili- zation Numbers

\*Time after start of research project

Ideally, the attitudinal and behavioral measures should provide checks on each other, and the use of control groups (towns in the county not selected to receive communication or transportation) should indicate the effectiveness, or lack thereof, of the experimental treatment.

## PROCESS

Rapport established in the target communities during the summer of 1973 was reinforced through correspondence with ministers, community leaders and directors of community centers during the spring of 1974. A response was received from only one white minister; however, he was relieved of his pastoral duties in the locale before the church could be visited. Subsequently, visits were made to arrange schedules for presentation of videotapes. In North, dates, time schedules and pick-up stations were also arranged for the transportation of persons to the agencies.

Entree was made in Elloree, the community where transportation, only, was to be offered, through personal contact within the school system and community centers to identify community "knowledgeables" and/or leaders. The transportation component was introduced to these persons and time schedules, pick-up stations and agencies to which the mini-bus would travel were mutually agreed upon.

Following these preliminaries, transportation notices, posters and announcements were distributed at strategic places in Elloree and North. Flyers from the agencies, specific releases prepared by the researchers in consultation with content specialists (e.g., "Guides to Good Health for People in Rural Areas" and "Facts About Sickle Cell Anemia") to present data in capsule, simplified form were distributed to churches, civic and social organizations and community centers in Bowman and North. Videotape film schedules were posted in businesses and public places where people congregate.

Communication

The audio-visual modules were created following a triadic presentation. First, the agency director explicated his agency's services. Second, there was a role play between a student (in some instances an actual client agreed to stage the procedure) simulating an applicant for the agency's services and an agency person. Finally, an explanation was made to the viewer of the agency's mode of operation and the reason for it. In the final episode, the viewer was urged to take advantage of the service previously shown.

To facilitate the creation of the audio-visual modules, preliminary work with the agency personnel required a great deal of tact. They had been accused of being inefficient, ineffective and uncooperative so often by persons purporting to do research that the personnel were not eager to be "studied" again. We were successful in enlisting the cooperation of six relevant agencies: Food Stamps, Adult Education, Vocational Rehabilitation, Farmer's Home Administration, Health Service and Employment Security Commission. Not only were they involved in the making of the audio-visual tapes, but they were instrumental in facilitating data collection (utilization rates).

Some agencies that were contacted proved not to be feasible for the needs of the project. For example, we were told that the Office of Economic Opportunity Program was in the process of being phased out. In Orangeburg County, the Cancer Society had only two paid persons at the time we were designing the Community Package; and contact with patients had to be made by volunteers who did not even qualify as paraprofessionals. Therefore, it was considered untenable to include this agency. The Social Security Commission for Orangeburg County had received a representative sum for their outreach program and to pursue this would seem redundant. The Commission on Alcohol and Drug Abuse

was not yet in operation when this phase of our research was in progress.

It was the opinion of the professional personnel at the Department of Social Services that the scope of their operation was too extensive to lend itself to the statistical aspects of the project (i.e., the Department of Social Services covers such a wide range of offerings that a base rate of Social Service usage would be impossible for our research design).

In addition to the six agencies previously mentioned, three other audio-visual tapes were prepared with agencies as an outgrowth of interrogation and expressed interest of a representative number of persons in the communities which we researched: (1) Sickle Cell Anemia (specialized consultants were used for this presentation), (2) Guides to Good Health and (3) High School Equivalency Program.

In the preparation of each audio-visual tape, general guidelines were structured based on the needs of the project and the input for the specific agencies. Although there was some slight variation in format to adjust to the needs of the particular agency, the general triadic design was followed.

Editing of the tapes was done by the researchers in conjunction with the media technician. Student assistants, who had been trained (1) to operate the audio-visual equipment, (2) to perform as participant observers and (3) to keep basic data records in accordance with the demands of the project, were used to facilitate both the audio-visual and the transportation aspects of the research.

With all filming and pretraining completed, contacts were made with ministers, community leaders and citizens to set in motion the prearranged research action component. In the areas of North and Bowman, dates, places and facilities for presentation of the communication packages were reaffirmed. Telephone calls, visits, letters, pamphlets, leaflets, etc., were necessary to set the

stage for the presentation of the films (there was a community newspaper in North in which published notices appeared and from which editorial support was given to the research plan).

Four churches in Bowman, three churches in North and the community centers in each of these communities made themselves available to us for presentation of our communication curriculum. The times varied from after the regular church service, after a revival, after Sunday School (when a sermon was not scheduled) or when there was a particular activity scheduled (e.g., choir practice or club meetings). Weekly schedules were arranged for presentation at the community centers.

Students were used as participant observers; and after each session they submitted to the project staff an evaluation sheet requesting such information as the area, the name of the institution, the audio-visual tape(s) presented, the attendance by sex and age category, the number and types of questions asked and personal evaluation of the "climate" (i.e., whether or not they thought the audience understood the film and if the atmosphere and questions seemed to indicate that interest had been generated and in what regard).

Internal concerns in the Bowman community averted the attention of the people to various meetings dealing with social problems and issues. However, it seems that when people become action-oriented, they are more receptive to information that may benefit them. Such may have influenced greater positive response to our communication packages in Bowman than in North.

The largest church to which we were welcomed in North, having lost its minister temporarily for military service, wavered in its leadership under a substitute pastor, and the attendance at the regular church services and at our meetings with the membership declined.

Originally, we planned a scheduled showing of videotapes with the intent to show each one in each community following a sequence; however, after the initial showing, the people who generated interest expressed themselves as to which ones they wished to see. During our film presentation phase, all of our films were presented in accordance with requests of the local people. Each film was presented along with handouts, brochures and pamphlets obtained from the agencies dealing with the context of the particular film. Handouts were developed on "Guides to Good Health for People in Rural Areas," "Facts About Sickle Cell Anemia" and the "High School Equivalency Program" by the research project staff. The following films were presented: "Employment Security: Facts and Answer," "How and Why of Food Stamps," "Understanding Sickle Cell Anemia," "Adult Education for You," "Vocational Rehabilitation: What It Can Do," "Farmer's Home Administration," "Guides to Good Health," "Health Department," and "High School Equivalency Program."

The film which generated the greatest audience response was "How and Why of Food Stamps" mainly because individuals could see the direct benefits from this particular service. Moreover, many persons requested personal assistance to expedite the procedures at the Food Stamp and Employment Security agencies. Since the people in Bowman and North are sparsely clustered over a circumference-type pattern, the film would be shown if as few as three persons came to a community center session.

There were 315 viewers of the films in North and 423 viewers in Bowman (see Tables 1 and 2). While these statistics do not represent persons, since one person might have viewed more than one film or the same film more than once, it is interesting to note that in Bowman--where internal problems seemed to have intervened--the number of viewings was greater than in North--where

no crisis situation existed. This may imply that crisis situations within a community influence the community to be alert to a wide spectrum of community problems.

TABLE 1

NUMBER OF VIEWERS ATTENDING SHOWINGS,  
BY KIND OF FILM AND PLACE OF SHOWING  
APRIL 1974-MARCH 1975

Subject	Total Number of Viewers At Showings		Mean Number of Viewers Per Showing	
	North	Bowman	North	Bowman
Food Stamps	189	180	28	23
Adult Education	28	37	14	9
Health Service	35	44	7	15
Vocational Rehabilitation	6	42	6	42
Farmer's Home Administration	16	18	5	9
Guides to Good Health	4	8	4	8
Employment Security	49	48	14	24
Sickle Cell Anemia	16	29	4	10
High School Equivalency	11	6	11	8
Total Attendance, all showings	315	423		

The mean number of viewers per film shown was higher in Bowman than in North for six out of nine films. The reason for this was that the majority of the showings in Bowman were at churches where attendance was high due to the congregation of persons for Sunday services. Entree into the churches at North was sharply limited by extenuating circumstances, and people had to be recruited to come out to the community centers especially to see the films. This method seemed to be considerably less effective numerically than reaching people where they had already gathered.

TABLE 2

RANK ORDER OF FILM SHOWINGS FROM  
RESEARCH PROJECT COMMUNICATION PACKET  
APRIL 1974-MARCH 1975

Subject	Number of Times Presented		Rank	
	North	Bowman	North	Bowman
Food Stamps	5	8	1	1
Health Department	5	3	1	2
Employment Security	4	2	2	4
Sickle Cell Anemia	4	3	2	3
Farmer's Home Administration	3	2	3	4
Adult Education	2	4	4	2
Vocational Rehabilitation	1	1	5	5
Guides to Good Health	1	1	5	5
High School Equivalency	1	2	5	4

Due to the inordinately large number of ties and the inadequacy of rank order correlation techniques to handle ties,<sup>4</sup> no accurate statistical summary of the rank order data for communication is available. However, visual observation indicates some agreement between towns on the order of preference for film showings. As in the transportation component, Food Stamps, Health Service and Employment Security were the most popular agencies, but another interest emerged as well: Adult Education and High School Equivalency. This interest did not appear on our transportation records for reasons discussed in the transportation section, but the indicated interest should be investigated both by other researchers and by policy-makers. Whether motivation to continue education in adulthood has always been high among the black rural poor but has only become available in recent years, or whether the economic difficulties of the nation in the past two years have stimulated this motivation is not clear; but research in this area would be well worthwhile.

#### Transportation

Tables 3 and 4 were derived from records kept by the bus driver from August 12, 1974, to January 29, 1975. Records from the first week were not reliable for several reasons. First, many persons wished to go shopping, visit relatives, etc., a fact which was discovered after the bus arrived in Drangeburg. Second, no policy had been established regarding adults and children who wished to "ride along," and they, too, were counted but did not attend any agencies. Finally, the agency demands of the riders differed from the programmed transportation schedule, and adjustments had to be made in the transportation record format.

<sup>4</sup>Hubert M. Blalock, Jr., Social Statistics (New York: McGraw-Hill Book Company, 1972), p. 425.

TABLE 3

Number of Persons Transported to Agencies by  
Project Mini-Bus from North, South Carolina  
August 12, 1974 - January 29, 1975

Week of Record	Adult Education	Farmer's Home Administration	Food Stamps	Employment Security	Health Department	Vocational Rehabilitation	Social Security	Social Welfare	Total Number	% Capacity
2	-	-	2	-	-	-	3	2	7	29
3	-	-	1	-	5	-	-	-	5	21
4	-	-	2	-	-	-	-	3	6	25
5	-	-	9	-	2	-	-	2	9	38
6	-	-	2	1	1	-	-	2	6	24
7	-	-	3	2	-	-	-	2	5	21
8	-	-	4	1	1	-	-	-	6	25
9	-	-	-	-	6	-	-	-	6	25
10	-	-	5	3	4	-	-	-	12	50
11	-	-	6	2	4	-	-	-	12	50
12	-	2	6	4	2	-	-	7	20	83
13	-	3	6	2	1	-	-	-	13	54
14	-	-	2	3	2	-	-	-	7	58
15	-	-	3	2	4	-	-	-	7	29
16	-	-	8	3	4	-	1	-	13	54
17	-	-	3	2	-	-	-	1	7	58
18	-	-	3	3	3	-	-	6	6	25
19	-	3	12	2	3	-	2	4	23	96
20	-	-	6	2	2	-	-	2	10	42
21	-	-	5	-	1	-	3	4	13	54
22	-	-	4	3	5	-	-	4	16	67
23	1	-	4	3	3	-	-	2	9	38
24	-	1	4	2	1	-	-	3	7	58
total	1	9	100	40	54	-	9	44	225	45

X number persons transported weekly = 9  
X percent weekly carrying capacity = 45

TABLE 4

Number of Persons Transported to Agencies by Project  
Mini-Bus from Ellboro, South Carolina  
August 12, 1974 - January 29, 1975

Week of Record	Adult Education	Farmer's Home Administration	Food Stamp	Employment Security	Health Department	Vocational Rehabilitation	Social Security	Social Welfare	Total Number	% Capacity
2	-	-	11	-	-	-	-	3	16	44
3	-	-	7	-	-	-	-	-	7	19
4	-	-	6	-	-	-	2	3	14	39
5	-	1	-	2	-	-	4	-	7	71
6	-	-	13	2	4	-	4	-	17	47
7	-	-	9	1	3	1	-	-	17	47
8	-	-	16	2	2	-	-	2	23	64
9	-	-	21	4	9	-	-	1	35	97
10	-	-	20	10	9	-	-	-	34	94
11	-	4	5	-	1	-	-	2	13	54
12	-	2	10	7	1	-	-	3	24	67
13	-	4	9	11	6	-	-	5	33	92
14	-	-	5	5	4	-	-	4	15	42
15	-	2	14	3	4	-	-	1	31	86
16	-	1	11	6	4	-	-	3	22	61
17	-	-	5	-	4	-	-	1	6	25
18	-	2	7	5	3	-	1	1	16	67
19	-	-	10	4	5	-	1	3	23	64
20	-	3	16	3	7	-	-	6	27	75
21	-	-	4	2	1	1	2	4	15	62
22	-	1	8	3	5	-	-	3	20	83
23	-	3	15	8	4	-	-	8	33	92
24	-	-	13	3	5	-	-	4	23	96
Total		23	235	81	81	2	14	57	481	65

X number persons transported weekly = 20  
X percentage weekly carrying capacity = 65

In several cases, the total number of persons riding the mini-bus does not reflect a summation of the agency use figures. Where the summation is higher than the total riding the mini-bus, the indication was that one or more persons went to more than one agency. Where the summation was lower than the total, the indication was that one or more of the persons was a small child with his or her parent: adults who were not clients were not allowed to ride.

For purposes of comparability, each total is also converted to a percentage of the carrying capacity of the van for that week. For example, if the van traveled to Ellore twice and North twice in a week, each total is divided by 24 (carrying capacity of the van = 12 per trip). If the van traveled to Ellore three times and North twice, the weekly total for Ellore would be divided by 36 and the total for North by 24.

Examination of Table 5 shows that the two agencies least utilized by riders were Adult Education and Vocational Rehabilitation. Adult Education classes met in the evening and locally, so it seemed reasonable that daytime transportation to Orangeburg would not have been useful to the people in that regard. The reason for the extremely low utilization of Vocational Rehabilitation through transportation was that personnel of this agency not only visited persons in their homes after referral, but also arranged transportation for those availing themselves of its services.

Of the agencies studied by this project, those most utilized were Food Stamps, Employment Security, Welfare and the Health Department, with Farmer's Home Administration ranking fifth. It was clear that a need existed for transportation both to the Social Security office and to the Social Welfare offices. These agencies were not promoted in any way by the project; however, transportation was provided for persons who requested to go: the need appeared during the transportation phase of the research (i.e., August 12, 1974-January 29, 1975).

A rank order analysis using Spearman's  $r$  indicates that the concerns of those riding the bus, although from different and distant towns, were very similar:

TABLE 5

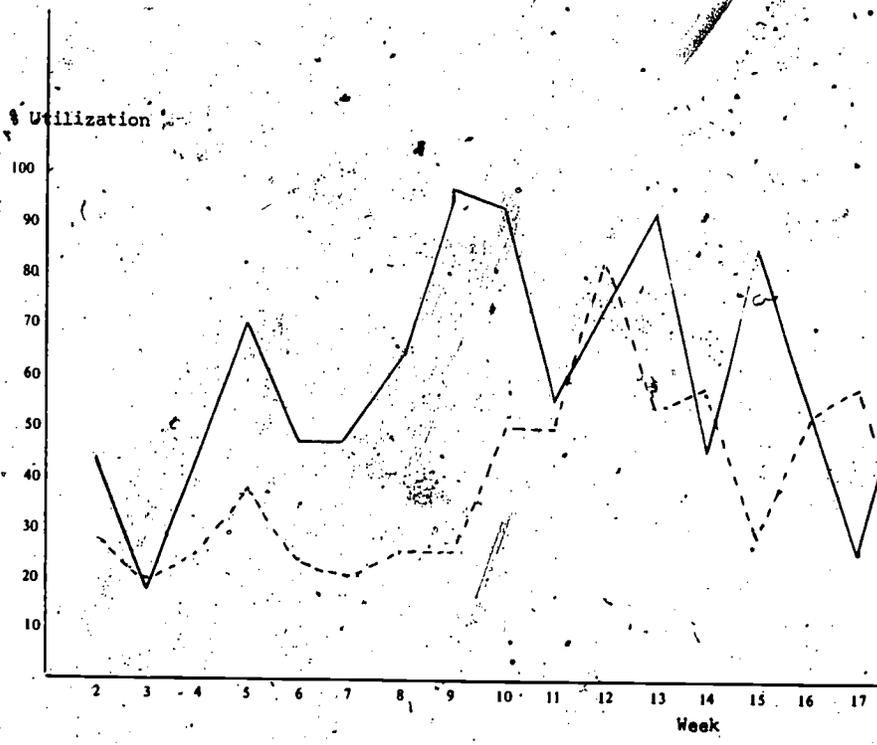
RANK ORDER OF AGENCY USE BY MINI-BUS RIDERS  
FROM ELLOREE AND NORTH, SOUTH CAROLINA  
AUGUST 12, 1974-JANUARY 29, 1975

Agency	Rank	
	Elloree	North
Food Stamps	1	1
Employment Security	2.5	4
Health Department	2.5	2
Social Welfare	3	3
Farmer's Home Administration	4	5
Social Security	5	6
Vocational Rehabilitation	6	8
Adult Education	7	7

$r_s = .90$

Graphic analysis indicates another similarity between the towns, namely, an oscillatory utilization pattern (see Figure 1). Such a pattern is highly interesting but not explainable within the framework of this study. Whether the agencies which account for the highest percentage of riders operate on a bi-weekly cycle, or whether some other factors are operating is open to conjecture and should be scrutinized by other researchers in the area of transportation.

Figure 1  
Transportation Utilization



The town which had exposure to communication should be expected to display higher motivation to use agency services and, therefore, produce higher rates of transportation usage than the town not exposed to communication. However, the opposite was true, leading the researchers to question the effectiveness of the mass communication techniques used. This question will be explored in greater detail following examination of pre and post treatment statistics of agency utilization.

In concluding the analysis of the transportation component, a statement on the racial composition of the clientele is apropos. There were eight white persons from Elloree who utilized transportation facilities, and the remainder were black.

## AGENCIES

Rather than rely on attitudinal survey techniques alone, we decided to sample persons actually using the services, or in some cases, referrals and new applicants to see whether any significant changes in agency utilization rates could be effected. Although the time periods of the samples vary from agency to agency, the sample was taken over the same time period for each agency. For example, if the sample was taken over a three-month period for agency A at time 1 (1973), then the sample was taken over a three-month period for agency A at time 2 (1975). However, agency B might have been sampled over a period of five days, depending on the flow of clients in accordance with the agency schedule.

Where feasible, research project personnel were assigned to keep records of client flow into the agency in order not to burden agency personnel with a task which might be a distraction or an imposition. In some cases, we relied on agency records, as in the case of Adult Education, Vocational Rehabilitation and Farmer's Home Administration, since service delivery methods did not lend themselves to reliable head counts taken over a period of days.

### Adult Education

Examination of Table 6 provides several interesting observations. In every instance except the town of North and the control group (mean of agency use figures for other towns in Orangeburg County), enrollment in Adult Education classes at least doubled. The greatest increase would be expected in North, the second greatest in Bowman, and the least increase in Elloree and the control group. In fact, however, the greatest increases were seen in basic education and high school for Bowman and basic education for the control group.

TABLE 6  
 COMPARATIVE USE OF ADULT EDUCATION SERVICES BY TOWN  
 FALL 1973 AND SPRING 1975

Town	Pretest (Fall 1973)		Post Test (Spring 1975)	
	Basic (1-8)	High School (9-12)	Basic (1-8)	High School (9-12)
Bowman	11	66	39	127
North	9	7	13	0
Elloree	25	57	54	98
$\bar{X}$ Control Groups*	39	128	91.5	122

According to the rules of inference, a decision had to be made that either our effect in Bowman was spurious, or other factors were operating to cancel our effect in North, or both. The latter was highly likely: something was happening, or failing to happen, in North. More people in Elloree than in North rode the bus. More people in Bowman than in North came out to the films. More people everywhere in the county took advantage of Adult Education services than the people in North. In fact, agency utilization increased slightly in North only for Employment Security and Food Stamps, with an increase comparable to other towns in referrals for Vocational Rehabilitation.

To test the effectiveness of communication on use of Adult Education services in Bowman, amalgamate the Elloree statistic with those of other towns, take the mean, exclude North, and run tests of significance as follows:

\*Control groups for Adult Education were located in the towns of Springfield, Holly Hill, Cordova and Orangeburg.

	Basic Education (1-8)			High School (9-12)	
	Pretest	Post Test		Pretest	Post Test
Bowman	11	39	Bowman	66	127
$\bar{x}$ all towns except North and Bowman	36	121	$\bar{x}$ all towns except North and Bowman	100	139
	$\chi^2 = .0186$			$\chi^2 = 2.6352$	
	$p = .85$			$p = .10$	

The null hypothesis cannot be rejected in either basic or high school education, but in the case of high school, there was evidence that the increase in Bowman at the high school grade level was slightly greater than chance alone would predict, if one is willing to accept  $p = .10$ . This is faint evidence indeed, but in the predicted direction.

#### Vocational Rehabilitation

Table 7, broken down among Elloree, North and a mean for all other towns (control group), indicates that referrals to this agency almost exactly doubled over a two-year period for experimental and control towns. Unfortunately, figures for Elloree were amalgamated with figures for Calhoun County, and could not be extracted. Transportation, however, was not likely to have much effect on the delivery of this agency's services since rehabilitation counselors visited clients in their homes, and transportation to and from the agency was arranged by the agency.

TABLE 7\*

COMPARATIVE USE OF VOCATIONAL REHABILITATION SERVICES  
BY TOWN, JULY-DECEMBER 1973 AND JULY-DECEMBER 1974

Town	Pretest July - December, 1973	Post Test July - December, 1974
Bowman	15	25
North	7	14
Elloree	No figures available	No figures available
$\bar{X}$ Control Group**	2.5	5

\*Both Tables 7 and 8 indicate referrals, not case loads

Even if we include Branchville with Bowman, on the assumption that Branchville's people often attend church in Bowman, the effect is still spurious (see Table 8). Therefore, it must be concluded that the showing of the film on Vocational Rehabilitation produced no significant effect upon the number of referrals to Vocational Rehabilitation. There may be a delayed effect, however, which the post test may have predated.

TABLE 8

COMPARATIVE USE OF VOCATIONAL REHABILITATION SERVICES  
BY TOWN-AREA, DECEMBER 1973 AND JANUARY 1975

Town	Pretest December, 1973	Post Test January, 1975
Bowman-Branchville	16	38
North	7	14
$\bar{X}$ Control Group**	2.4	4.5

$\chi^2 = .0975$        $p = .90$

\*\*Control groups for Vocational Rehabilitation were located in the towns of Norway, Springfield, Rowesville, Cope, Neeses, Branchville (except Table 8), Cordova and Livingston.

Farmer's Home Administration

The statistics provided by Farmer's Home Administration were not amenable to statistical analysis, as Table 9 indicates. These figures did not represent the flow of services from the agency to its clients; they represented only loans closed on houses for low-income persons over a one-month period. Farmer's Home Administration offered a variety of services, but tabulating them all would have required resources beyond those of this study. The number of loans closed, then, was the most accessible figure available for tabulation.

TABLE 9

FARMER'S HOME ADMINISTRATION LOANS CLOSED  
BY TOWN MARCH 1973 AND MARCH 1975

Towns and Surrounding Areas	Pretest March 1973	Post Test March 1975
Bowman	1	0
Elmore	0	1
Springfield	0	1
Cordova	2	1
Neeses	1	1
Rural Orangeburg	4	7
Santee	1	3

Little can be concluded with certainty about the effectiveness of communication on the use of this agency. We do not know how many persons applied for loans, and were not accepted or, for 1975, how many persons applied for loans were accepted, but not processed by March. Gathering and tabulating these data would have been most complicated given (1) the time lag and other factors

intervening between application and closure and (2) the confidential nature of the applications.

We must conclude that there are insufficient data to warrant analysis of this agency.

#### Employment Security Commission

Table 10 demonstrates a fourfold increase in claims for all towns, experimental and control. Part of this drastic increase was, no doubt, due to the fact that the study was conducted over a period of worsening recession. Part of the increase, however, is due to a new method of determining client flow by the Employment Security Commission, which gave us a more comprehensive method of counting. The main point is that the increase happened uniformly. What was surprising, however, is a significant increase in new claims only for those towns which the film on the Employment Security Commission was shown.

TABLE 10

COMPARATIVE USE OF EMPLOYMENT SECURITY COMMISSION SERVICES BY TOWN, DECEMBER 1973 AND MARCH 1975

Town	Pretest December 3-7, 1973		Post Test March 10-14, 1975	
	Claims	New Clients	Claims	New Clients
Bowman	12	7	45	15
North	16	4	75	10
Elloree	11	5	50	3
$\bar{X}$ Control Group*	12	7	45	5.6

\*Control group in towns of Branchville, Cope, Cordova, Eutawville, Holly Hill, Neeses, Santee, Springfield and Vance.

	New Clients	
	Pretest	Post Test
Bowman and North	11	25
Elloree and Control Group	11.6	8.6
	$\chi^2 = 3.8834 \quad p = .05$	

The only alternative explanation readily at hand was that employment increased, or unemployment stopped increasing, in 1975, in every town in Orangeburg County except North and Bowman, an hypothesis which had no basis in the daily observation of the researchers. Hence, it may be tentatively concluded that communication in itself produced a positive effect on the utilization of this agency's services, since transportation alone had no positive effect.

#### Food Stamps

Perhaps the most startling fact about Table 11 is the drastic decrease in the number of persons receiving food stamps in Elloree. An educated guess is that there was some severe pruning of the food stamp rolls in 1973, which had not yet reached Elloree, but which occurred in 1974, after the pretest was taken.

TABLE 11

COMPARATIVE USE OF FOOD STAMP SERVICES BY  
TOWN, OCTOBER 1973 AND MARCH 1975

Town	Pretest October 1-5, 1973	Post Test March 3-6, 1975
North	75	78
Bowman	97	115
Elloree	309	43
X Control Group*	59	57

\*Control group in towns of Branchville, Holly Hill, Eutawville and Springfield.

Although the pattern which appears in Table 11 is found in Table 10, the trend is not significant. Lack of significance may be partly due to the necessary exclusion of Ellore from the calculation of the Chi Square in this instance, since to include it would be to insure significance with a statistical artifact. The fact that the patterns correlate, however, is worth noting for overall analysis of agency utilization.

	Food Stamps			Food Stamps	
	Pretest	Post Test		Pretest	Post Test
Bowman	75	78	Bowman & North	172	193
North	97	115			
Control Group	59	57	Control Group	59	57
	$\chi^2 = 1.7825$			$\chi^2 = 0.5054$	
	$p = .50$			$p = .50$	

#### Health Services

Figures for the Health Service (see Table 12) do not include family planning, prenatal or crippled children's clinics. All figures reflect only clinics held in the towns around Orangeburg County, since figures from the city of Orangeburg would artificially inflate the mean used to represent non-experimental towns.

The same pattern emerges: an increase for all towns, experimental and control, in the same direction, with the differences of increase not statistically significant.

TABLE 12

COMPARATIVE USE OF HEALTH DEPARTMENT SERVICES  
BY TOWN, WINTER 1973 AND SPRING 1975

Town	Pretest November 13 - December 13, 1973	Post Test May 3-31, 1975
North	18	135
Bowman	38	115
Elloree	90	147
X Control Group*	31	95

\*Control group in towns of Springfield, Norway, Holly Hill, Eutawville and Branchville

Conclusion

Whether or not transportation would have been a significant factor in raising agency utilization rates cannot be determined in the face of overwhelming increases across the county. Of the six agencies examined, one had to be discarded; two showed a pattern of increase only in the towns where communication was presented; and three showed a pattern of uniform increase across towns. Agencies whose utilization rates seemed to have been affected by communication were Employment Security Commission and Food Stamps; those whose rates increased uniformly with or without communication were Vocational Rehabilitation, Adult Education and Health Service.

Two explanations are in order. Why, when jobs were scarce and buying power growing daily more limited, did use of Employment Security and Food Stamps

by the rural poor (1) not increase in the same manner as the other agencies and (2) not increase except in the towns in which films on Food Stamps and Employment Security were shown?

We offer the following explanation for consideration. The three agencies whose utilization went up markedly all had an "expansion factor." Nurses could work more clinics and see more people per clinic; rehabilitation counselors could be assigned larger case loads; Adult Education classes could be made larger, all without noticeable budget increases. Food Stamps and Employment Security had no such "expansion factor." At a time when taxpayers were feeling pinched and straitened, the legislature was not about to double, triple or quadruple the amount of money given to these agencies. Yet the flood of applicants flowed to them, just as they did to the other three.

The resources to serve these applicants, however, were not available, and rather than turn down large numbers of persons, possibly provoking widespread dissatisfaction, these agencies tightened procedural regulations until many potential clients became discouraged and decided not to persist. People from North and Bowman, however, had been alerted to the procedures of agency operation and were able to navigate the bureaucracy successfully, asserting themselves with their new knowledge and obtaining the services.

Obviously, this is a reconstruction which we have insufficient data to verify. We have no records from either the Food Stamp office or Employment Security Commission of numbers of applications made but not processed due to incompleteness, errors, etc. At the time this study was made no information was available on what, if any, increases in budgets for all agencies were granted by the legislature, and whether or not these increases (if any) were proportional to the increased demand for these services. We do not know that agencies in

Orangeburg County say "no" indirectly by tightening regulations rather than outright refusal; however, denying services to those who need them is never pleasant, and agency personnel might prefer to use restrictive regulations as a kind of detour around this distasteful chore. Therefore, this reconstruction is offered, with the above qualifications, as the best explanation of our findings.

## THE INTERVIEW

### Method

The interview questions fell into three categories: (1) basic questions about the informant (e.g., household inhabitants, age, sex, income, etc.); (2) questions to ascertain the knowledge of the informant about the agencies, their services, mode of transportation to and distance from them; and (3) questions about attitudes, both toward agencies and perceived attitudes on the part of agency personnel.

The interview pretest was administered over a one-month period between November and December 1973, and the post test over a one-month period in May 1975, using paraprofessional interviewers. The sample was randomly selected from predominantly black neighborhoods in Bowman and North.

The use of paraprofessional interviewers as a method merits some consideration, since it has both advantages and drawbacks. Its main advantage is that persons who share the experiential milieu of the informants are better able to establish rapport than "outsiders," i.e., the researchers. Its main disadvantage is that paraprofessionals are not trained researchers and may or may not have good interviewing skills. If they do, they may not be able to express their results even on a highly structured interview format. An open-ended interview schedule was, therefore, out of the question.

We decided that the rapport would, in the case of the rural poor predominantly black community, outweigh the problems with lack of communication on the part of the paraprofessionals, and we recruited to minimize the latter.

The procedure we used was as follows:

1. Contact was made with the Superintendent of City Schools to elicit his support in communicating to public school teachers the need for interviewers, the qualifications, the late after-hour and weekend work time, etc.
2. A time was established when interested persons would meet, be introduced to the project's goals and procedures, complete applications and express their views for the purpose of screening and planning workshops.
3. Workshops were conducted at which time the project's professional staff instructed the paraprofessionals in map usage, interview techniques, role-playing interview strategies, and professional ethics as researchers. Field assignments were made and reporting schedules released. The workshops were conducted prior to both the pre and post test interview phase.

Although some interviewers worked more assiduously than others, the average interviewer elected a case load of about 7 informants. To equate the earning power of the interviewers, each was encouraged to plan for 10 interviews, but informed that he/she might contract for a lesser, or greater number after acquiring some evidence of his/her time-skill potential. Moreover, it was necessary to keep the total number of interview schedules within the 200-sample figure and to allow a maximum of 5 percent for respondent error and 5 percent for interviewer error.

Originally, we planned to refrain from using interviewers who resided in the community or who had immediate family ties in the given community because

we were operating on the thesis that a person may more readily respond to a stranger than to relate intimate information to a peer. However, the researchers learned from the paraprofessionals that the opposite was the case (i.e., rural, poor people tend to trust the confidentiality of a peer more than that of a stranger).

We observed a competitive spirit among the interviewers which inadvertently assisted us in this phase of the project. That is, we easily secured over 200 usable schedules within the one-month time span allotted for both pre and post test field operation. Moreover, we ran a 20 percent random recheck of the North and Bowman areas using student workers to ascertain if a residence had been contacted by an interviewer. Although not statistically indispensable, it did reveal whether or not any interview schedules were forged: less than 4 percent of the recheck sample was questionable. Student workers' comments, except for one case, indicated that where the recheck respondent was not aware of previous interviewer contact, the person was a male and not at home at the time the interview was taken with the female(s) of the household. It is quite possible that the female(s), if interviewed, may not have characterized such knowledge as conversation topics with the male(s) in the households.

#### Findings

For purposes of this analysis, Farmer's Home Administration has been excluded, since the purpose of the interview schedule was to enhance our understanding of the agency utilization figures discussed in the previous section.

A cursory examination of the interview data presented in Table 13 would seem to indicate that the rural poor are not troubled by the inconsistencies

which plague social scientists. For example, although only 3 people from Bowman reported any direct experience with Vocational Rehabilitation, 35 reported the agency personnel there to be friendly. Furthermore, the reported use of all agency services by interview respondents seldom agrees with the agency utilization figures. No significant increases in agency utilization could be gathered from interview reports. It is difficult to decide, then, just what was happening here.

One very obvious fact emerges, which is that observed and reported behavior are very different, a phenomenon being increasingly verified by the literature in sociological methodology.<sup>5</sup> Within the context of this study, the analytical problem at hand is how to interpret the attitudinal data on the agencies with which the people have not had direct experience.

One possibility is the sociological axiom that if you ask a person for an opinion, you will get one, whether or not the person knows anything about the topic at hand. A less cynical approach would indicate that the informants answered out of "grapevine" knowledge: having heard that a particular agency has friendly personnel from a friend of a friend who knew someone.... Considering the communication channels of the rural community, the second approach is very likely to be accurate. This form of communication has received too little attention from rural sociologists and should be explored.

Despite a positive majority opinion of the attitude of agency personnel toward them, the persons included in the sample expressed considerable dissatisfaction with the agency system (see Table 14). In all cases except Bowman during the post test, over 66 percent felt both that people who need agency services cannot obtain them and that people obtain them who do not need them. If we

<sup>5</sup>For a summary review of the literature, see Derek Phillips, Knowledge From What? (Chicago: Rand McNally and Co., 1971).

TABLE 13  
 REPORTED USE OF AGENCY SERVICES AND REPORTED ATTITUDES  
 OF AGENCY PERSONNEL, BOWMAN AND NORTH, SOUTH CAROLINA

Interview Question	Pretest		Post Test	
	Bowman N = 112	North N = 95	Bowman N = 92	North N = 114
<u>Adult Education</u>				
Have you or a member of your family ever used this service?				
Yes	60	16	24	20
No	50	78	68	88
N.A.	1	1	-	6
What is the attitude of the people there?				
Friendly	45	7	25	18
Hostile	1	-	-	-
Neither	3	2	2	2
N.A.	6	86	65	9
Are you using it now?				
Yes	7	3	1	-
No	104	92	86	99
N.A.	1	-	5	15
<u>Vocational Rehabilitation</u>				
Have you or a member of your family ever used this service?				
Yes	3	2	-	4
No	100	93	85	87
N.A.	9	-	7	23
What is the attitude of the people there?				
Friendly	35	4	20	16
Hostile	3	-	2	1
Neither	3	1	2	1
N.A.	81	87	68	96

(continued)

TABLE 13--contd.

REPORTED USE OF AGENCY SERVICES AND REPORTED ATTITUDES  
OF AGENCY PERSONNEL, BOWMAN AND NORTH, SOUTH CAROLINA

Interview Question	Pretest		Post Test	
	Bowman N = 112	North N = 95	Bowman N = 92	North N = 114
<u>Vocational Rehabilitation--contd.</u>				
Are you using it now?				
Yes	7	2	7	7
No	103	92	80	85
N.A.	2	1	5	32
<u>Employment Security</u>				
Have you or a member of your family ever used this service?				
Yes	78	72	81	91
No	32	20	11	22
N.A.	2	3	-	1
What is the attitude of the people there?				
Friendly	7	9	10	5
Hostile	90	84	81	95
Neither	-	-	-	-
N.A.	15	2	1	14
Are you using it now?				
Yes	16	9	6	7
No	90	79	83	93
N.A.	8	7	3	12

(continued)

TABLE 13--contd.

REPORTED USE OF AGENCY SERVICES AND REPORTED ATTITUDES  
OF AGENCY PERSONNEL, BOWMAN AND NORTH, SOUTH CAROLINA

Interview Question	Pretest		Post Test	
	Bowman N = 112	North N = 95	Bowman N = 92	North N = 114
<u>Food Stamps</u>				
Have you or a member of your family ever used this service?				
Yes	94	67	71	83
No	18	28	17	10
N.A.	-	-	-	-
What is the attitude of the people there?				
Friendly	54	33	31	52
Hostile	10	20	18	25
Neither	24	17	21	12
N.A.	14	25	22	25
Are you using it now?				
Yes	68	52	49	58
No	44	43	41	52
N.A.	-	-	2	4
<u>Health Services</u>				
Have you or a member of your family ever used this service?				
Yes	108	92	91	98
No	4	3	1	16
N.A.	-	-	-	-
What is the attitude of the people there?				
Friendly	69	49	69	51
Hostile	1	2	1	31
Neither	5	13	1	12
N.A.	40	31	22	28

(continued)

TABLE 13--contd.

REPORTED USE OF AGENCY SERVICES AND REPORTED ATTITUDES  
OF AGENCY PERSONNEL, BOWMAN AND NORTH, SOUTH CAROLINA

Interview Questions	Pretest		Post Test	
	Bowman N = 112	North N = 95	Bowman N = 92	North N = 114
Health Services--contd.				
Are you using it now?				
Yes	36	39	38	44
No	75	53	52	62
N.A.	1	-	2	8

were to define alienation roughly as a reported feeling of exclusion and powerlessness, the answers to these questions certainly indicate that feeling.

Only in Bowman was there a noticeable decline in the expressed belief that "many people who need agency services cannot get them." The findings from Food Stamps and Employment Security suggest that the people in Bowman experienced success in obtaining these services, and that their sense of alienation declined accordingly. This explanation is not adequate, however, to accommodate the findings from North, where success, apparently, was also experienced, but alienation did not decline. Here is an additional piece of information which gives credence to our initial observations about North, confirming them attitudinally as well as behaviorally.

TABLE 14  
ATTITUDE TOWARD AGENCIES EXPRESSED BY  
RESPONDENTS IN BOWMAN AND NORTH, SOUTH CAROLINA

Interview Question	Pretest		Post Test	
	Bowman N = 112	North - N = 95	Bowman N = 92	North N = 114
"There are many people who need agency services who cannot get them."				
Agree	79	71	50	78
Disagree	14	12	10	9
N.A.	19	12	37	27
"Lots of times people get agency services who don't need them."				
Agree	86	80	74	81
Disagree	14	10	6	10
N.A.	12	5	12	23

Table 15 illustrates so striking a variance between observed and reported behavior that some commentary seems imperative. One possibility is that the sample is not representative of the population. Appendices 2-4, distribution of sample characteristics, seem to support this suggestion, being heavily weighted for females and underrepresented in some income brackets. It may be that there has been no reported increase among black females at certain income levels in agency utilization because they do not know whether or not their husbands are using the service. This hypothesis does not seem altogether realistic, however, in light of the fact that the wife/mother usually attends to such matters as the food and health of the family and would be likely to know what agency services her family used.

TABLE 15

OBSERVED VERSUS REPORTED INCREASES OR DECREASES  
IN AGENCY UTILIZATION, BOWMAN AND NORTH, SOUTH CAROLINA

	Observed		Reported	
	Bowman	North	Bowman	North
Adult Education (Basic)*	2.54	.44	-.83	-1.00
Adult Education (High School)*	1.08	-1.00	-.83	-1.00
Vocational Rehabilitation	1.50	1.00	.33	2.00
Employment Security	1.92	3.69	.50	-.33
Food Stamps	.19	.04	-.13	-.07
Health Service	2.02	6.50	.28	-.07

\*Not differentiated in interview schedule

Another possibility is that increase in agency utilization occurred primarily in the white community and was, therefore, not reported in the predominantly black sample interviewed. Unfortunately, it was not possible at the time of this study to obtain a breakdown of agency statistics by race, making this hypothesis virtually untestable within the structure of the study.

A third possibility is that there may be some stigma attached to using agency services, and the use of these was underreported. There is evidence in Appendices 2 and 3 that certain income levels are not reported, with a large percentage of No Response or Don't Know, perhaps indicating a "touchy" question. It may be that questions about agencies fall into the same category.

Finally, there is the possibility that the increases in agency utilization reported by the agencies are statistical artifacts based on different methods of counting between 1973 and 1975, of which we are unaware. Unless there is some dissimulation on the part of the agencies (which we strongly doubt), this is highly unlikely, except as previously noted for Employment Security, since we tabulated or oversaw the tabulations ourselves, both for the pretest and the post test.

Further research into discrepancies between observed and reported behavior among the rural poor is obviously indicated by the above analysis.

## CONCLUSIONS AND PROJECTIONS FOR FUTURE RESEARCH

As systematic variable design research carried out among the rural poor for the purpose of exploring factors in agency utilization, this study represents a "first" in rural sociology. Therefore, the results cannot be compared with a body of existing literature, and all statements of conclusions should be evaluated in light of this fact.

None of the hypotheses were confirmed. In some cases, communication produced significant effects and was hypothesized as an interactive variable with economic factors. The effect of transportation was negligible, partially due to large increases in agency utilization which may have obscured the research design. Agency utilization increased for all agencies, in general for Adult Education, Health Service and Vocational Rehabilitation and selectively for Food Stamps and Employment Security. The increases were not, however, reflected in the reports of the sample interviewed. Given the nature of the investigation, in-depth study and comparison of individual cases, the research data were confined to nominal and ordinal statistical analysis; thus, we lost the advantage of the more sophisticated techniques of analysis of variance and covariance.

The appearance of a factor, which we term alienation, on the attitudinal section of the interview schedule needs to be explored in depth, both in itself and in its relationship to agency utilization by the rural poor. Replication and companion studies should be conducted to validate or to challenge this study.

Little is known about the underlying factors in decision-making by the rural limited-resource community. Communication within that community and between it and the mainstream of American life should be explored extensively and systematically.

## Appendix I

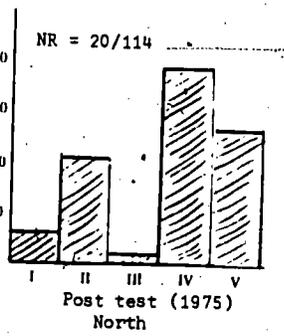
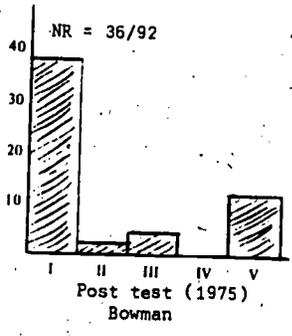
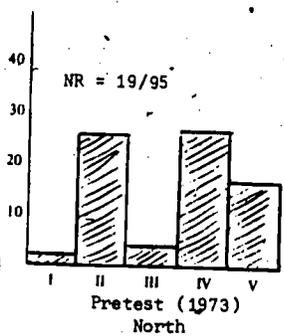
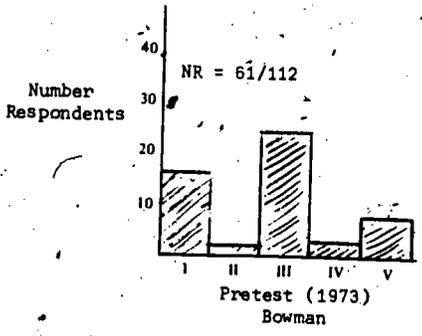
Population of Towns in Orangeburg County  
According to 1970 U.S. Census

	Population
Bowman . . . . .	1,095
Branchville . . . . .	1,011
Cope . . . . .	202
Cordova . . . . .	205
Etloree . . . . .	940
Eutawville . . . . .	386
Holly Hill . . . . .	1,178
Neeses . . . . .	388
North . . . . .	1,076
Norway . . . . .	579
Orangeburg . . . . .	13,252
Springfield . . . . .	724
Orangeburg County . . . . .	69,789

Appendix 2  
Figure 2

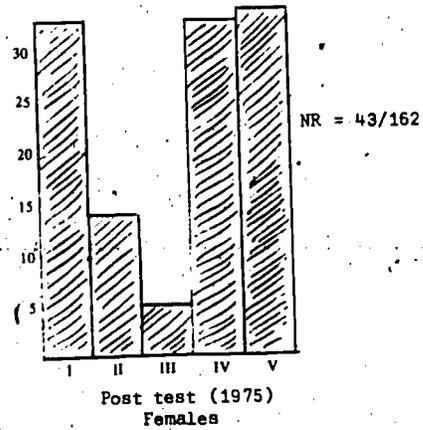
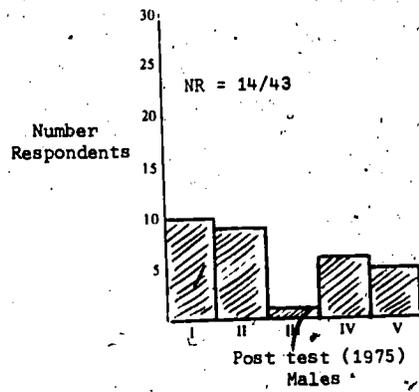
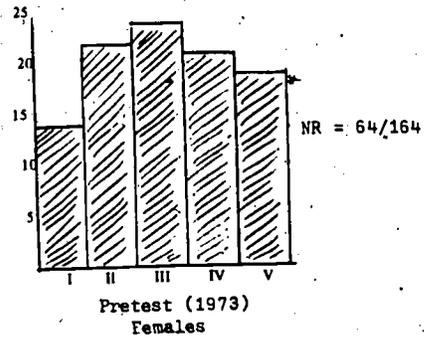
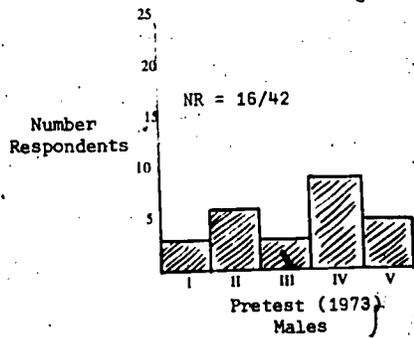
Distribution of Reported Income by Town

I 0 - \$24 per week  
 II \$25 - 44 per week  
 III \$45 - 59 per week  
 IV 60 - 84 per week  
 V 85 - 99 per week  
 NR = No Response  
 'Don't Know



Distribution of Reported Income by Sex

- I 0 - \$24 per week
- II \$25 - 44 per week
- III 45 - 59 per week
- IV 60 - 84 per week
- V 85 - 99 per week
- NR = No Response  
Don't Know



Appendix 4

Distribution of Interview Respondents by Sex, Pretest and Post Test Bowman and North, South Carolina

Pretest and Post Test By Town	Male		Female		Total N
	Number	Percentage	Number	Percentage	
Bowman Pretest (1973)	18	16	94	84	112
Bowman Post Test (1975)	21	23	71	77	92
North Pretest (1973)	25	26	70	74	95
North Post Test (1975)	23	20	91	80	114

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