

## Journal of Rural Social Sciences

---

Volume 01

Issue 1 *Southern Rural Sociology Volume 1,*  
*Issue 1*

Article 7

---

12-31-1983

### Use of Government Services by Low-Income, Rural Residents in Alabama

Gerald C. Wheelock  
*Alabama A&M University*

Joseph Befecadu  
*Alabama A&M University*

Priscilla Salant  
*ERS, USDA*

Follow this and additional works at: <https://egrove.olemiss.edu/jrss>



Part of the [Rural Sociology Commons](#)

---

#### Recommended Citation

Wheelock, Gerald, Joseph Befecadu, and Priscilla Salant. 1983. "Use of Government Services by Low-Income, Rural Residents in Alabama." *Journal of Rural Social Sciences*, 01(1): Article 7. Available At: <https://egrove.olemiss.edu/jrss/vol01/iss1/7>

This Article is brought to you for free and open access by the Center for Population Studies at eGrove. It has been accepted for inclusion in *Journal of Rural Social Sciences* by an authorized editor of eGrove. For more information, please contact [egrove@olemiss.edu](mailto:egrove@olemiss.edu).

USE OF GOVERNMENT SERVICES BY LOW-INCOME,  
RURAL RESIDENTS IN ALABAMA

Gerald C. Wheelock  
Joseph Befecadu  
Arthur Okoro  
Department of Agribusiness Education  
Alabama A&M University  
Normal, Alabama

Priscilla Salant  
Economic Development Division  
ERS/USDA

ABSTRACT

Overparticipation in government programs often receives much publicity, while the question of underparticipation by those eligible is seldom addressed. It is hypothesized that participation rates and reasons for nonparticipation among eligibles are related to household characteristics and county-level variables. A random cluster sample of 251 households in three randomly selected, rural, low-income Alabama counties was surveyed in August and September, 1981. Data analyzed deal with the utilization of food stamps, Medicaid, Medicare, and county health services. It is estimated that needy nonparticipants among eligibles in food stamps are about twenty-two percent; in Medicaid about forty-six percent; in Medicare about nineteen percent; and in county health services about twenty-three percent. The hypothesis regarding the relation between participation, on one hand, and race, education, and county-level variables on the other, was supported. Residence in the poorest county, and household heads who were black and had the least education tended to correspond with needy nonparticipation among eligibles.

INTRODUCTION

Public concern over growing federal outlays has focused national attention on the cost of social welfare programs. Indeed, the cost of administering programs established for the purpose of ensuring a minimum standard of living for the nation's poor has grown rapidly over the past twenty years. With so much attention riveted on cutting costs and eliminating people from the welfare rolls, the problem of underutilization of social welfare programs is overlooked at best, and ignored at

worst. However, research suggests that those who are eligible do not always take advantage of available programs. In fact, the number of needy people being served may be far less than the number who are actually eligible (Rungeling et al., 1977; Wheelock and Warren, 1978).

This report addresses the issue of government service utilization by target populations in selected counties in Alabama. It is hypothesized that a relationship exists between use or participation on one hand, and household characteristics and county-level variables on the other.

#### DATA AND PROCEDURES

In 1981, 1890 Land-Grant Institutions including Tuskegee Institute conducted a regional research project entitled, "The Isolation of Factors Related to Levels and Patterns of Living in the Rural South" (RR1). The project involved primary household data collection in 10 Southern states. The Alabama portion of the sample was used in this report. Restricting the analysis to only one state severely limited the number of available observations. However, it was felt that the sample size was still adequate for preliminary analysis, and that results might warrant future study of all ten states.

A two-stage sampling technique was used to obtain RR1 data (Wheelock et al., 1983). Stage 1 consisted of county selection from the most rural (70% or more) and lowest income (below 35th percentile on medium family income) Alabama counties. These 11 counties were arrayed by percent black, lowest to highest. Counties with fewer than 400 blacks were previously dropped from the list. Three counties were

systematically selected by probability in proportion to size methods (Kish, 1965). This probability sampling procedure yielded a predominantly black county (Wilcox), a mixed county (Monroe), and a predominantly white county (Washington). In combination with stage 2, this method approximated equal probability of selection for households in the 11 counties described by the above sample frame. Stage 2 consisted of systematic random selection of eight households from 32 randomly sampled clusters within the three counties. The result was a total of 251 completed instruments from 256 sample households. Enumerators conducted on-site, personal interviews with the head of each household. A summary of the socioeconomic characteristics of the sample households is presented in Table 1.

In addition to asking for demographic and economic information about the household, the RRI questionnaire included questions on the use of government programs. Respondents were asked whether they used any of seventeen different programs. (See Appendix A for a listing of these questions.) Those who responded negatively were asked whether they considered themselves ineligible or had other reasons for not participating.

Of the seventeen government programs covered in the RRI questionnaire, four were chosen for analysis in this report--Food Stamps, Medicaid, Medicare, and county health departments. Briefly, the eligibility criteria and services provided by these programs (Dagata et al: 1982) are as follows:

- 1) Food Stamps: Administered by the U.S. Department of Agriculture, the original Food Stamp Act of 1964 was

Table 1. Socioeconomic characteristics of 251 sample households, Wilcox, Monroe, and Washington Counties, Alabama, 1981

Item	Unit	Wilcox	Monroe	Washington	Total
Sample size	N	70	102	79	251
Race of head					
Black	%	77	43	18	45
White	%	23	57	82	55
Age of head					
Under 65	%	60	69	81	70
65 or over	%	40	31	19	30
Years of school completed by head					
Less than 8	%	50	27	24	33
8 or more	%	50	73	76	67
Median household income	\$	6,060	9,210	12,125	8,789
Median household size	N	2.98	2.88	3.75	3.16

designed to improve the food consumption habits of low-income families. Allotment and eligibility are based on federally established standards concerning family size, income and level of resources.

- 2) Medicaid and Medicare: These two programs are administered by the Department of Health and Human Services. Both are components of a broad effort to provide the elderly and the low-income population with financial access to improved medical care. Medicare is available to persons 65 and over (with minor exceptions), and certain disabled persons under 65. Eligibility for Medicaid is based on income and disability. Exact criteria are set by each state in accordance with Federal guidelines.
- 3) County health department services: County health departments are administered locally and are open to all residents of each given county. Immunizations, family planning, nutritional supplements and other routine health care is offered free or at nominal charge.

This report is concerned with the use of services by eligible persons. Therefore, respondents to the RRI government service questions were grouped according to whether they met the specific eligibility requirements for each particular program, based on data they provided elsewhere in the questionnaire. Eligible respondents were further classified according to whether they utilized the specified program. Those eligibles who did not use the program were then grouped by the reasons they gave for not participating (Table 2).

Table 2. Selected government programs by participation status of 251 sample households, Wilcox, Monroe, and Washington Counties, Alabama, 1981

Participation Status	Unit	Food Stamps	Medicaid	Medicare (65 & over)	County Health Services
Ineligibles	N	133	221	176	0
Eligibles	N	118	30	75	251
Participants	%	50	33	56	3
Nonparticipants	<u>a/</u>				
1	%	8	23	8	21
2	%	14	23	11	2
3	%	28	20	25	74

a/Reasons for nonparticipation:

1. Insufficient knowledge about the service, lack of transportation, unclassified reason.
2. Self-defined ineligibility.
3. Eligible but "not needed" (self-defined not needed).

In the case of food stamps, federally mandated household size and income guidelines were used to determine eligibility. No assets tests were applied. In the case of Medicaid, Alabama regulations state that those households headed by females and handicapped males eligible for Aid to Families With Dependent Children (AFDC) also qualify for Medicaid. Thus, for purposes of this report, AFDC guidelines and respondents self-evaluation of handicapped status were used to determine eligibility. Male household heads who classified themselves as "not able to work at all" or "able to work but limited in the amount or kind of work" were considered handicapped.

All households were assumed to be eligible for services provided by county health departments. Furthermore, households with heads 65 or over were assumed to be eligible for Medicare.

Households classified in Table 2 as nonparticipants (1) and (2) are reclassified as "needy nonparticipants" for the subsequent analysis. This group includes all eligible respondents who gave a reason other than "not needed" for their nonparticipation. Reasons ranged from self-defined ineligibility, insufficient knowledge about a given service, and lack of transportation, to other specified or unclassified reasons, for example, "our uncle is a (public official) and forbids our participation." Household heads who made an unqualified claim that they did not need the service were classified in nonparticipant group (3).

#### RESULTS AND ANALYSIS

Participation by eligible respondents ranged from 56% in the Medicare program to 3% in county health department services. Almost one-fourth of those eligible for Medicaid did not realize they met eligibility requirements (Table 2). Of the four programs, the food stamp program was used by the largest number of families.

In Table 2, eligible respondents were classified into the group that represented their level of program utilization. It is hypothesized here that there is a relationship between program utilization and (a) socioeconomic variables (race, education and sex of households head, and household income) and (b) county context. These relationships were tested in crosstabular analysis using Statistical Package for Social Sciences (Nie et al., 1975). Results of this analysis are presented in Tables 3 through 7.

A chi-square test of significance and a related nominal level measure of association, Cramer's V, were calculated from these cross-



tabular analyses (Blalock, 1972; Tai, 1978).

Of the five socioeconomic variables tested, race was most strongly related to level of participation in government services, particularly in the food stamp and county health programs (Table 3). Eligible blacks were both more likely to participate and to be needy nonparticipants than their relative representation in the population would suggest. Whites, on the other hand, were more likely to respond that they did not need either food stamps, Medicare (65 and over) or the county health programs.

Education was also significantly related to participation in three of the four programs, most strongly in the case of Medicaid (Table 4). Proportionately, eligible respondents with less than eight years of education were more likely to participate and less likely to claim they did not need the program. A somewhat weaker, but still significant relationship was observed in the cases of food stamps and county health services.

Only in the case of Medicaid was the relationship between sex of household head and participation relatively strong and significant (Table 5). No association was observed in the other three cases.

Income guidelines were used to determine eligibility for two of the four programs, food stamps and Medicaid. Thus, the test for a systematic relationship between participation and income could be made only in the case of the two remaining programs, Medicare (65 and over) and county health services (Table 6). While lower income families participated more frequently, the relationship was not significant in

Table 3. Program utilization among eligible households, by race of household head, Wilcox, Monroe, and Washington counties, Alabama, 1981.

Program/Utilization	Black	White	Cramer's V
	N	N	
Food stamps			
Participants	48	12	.40 <sup>b/</sup>
Needy nonparticipants	17	8	
Not-in-need	9	24	
Medicaid			
Participants	9	1	.35
Needy nonparticipants	12	2	
Not-in-need	4	2	
Medicare (65 and over)			
Participants	27	15	.30 <sup>a/</sup>
Needy nonparticipants	7	7	
Not-in-need	6	13	
County health services*			
Participants	5	3	.38 <sup>b/</sup>
Needy nonparticipants	45	13	
Not-in-need	62	119	

a/Significant at .1 level.

b/Significant at .05 level.

\*Total excludes four of other races who were not among eligibles of the first three programs.

Table 4. Program utilization among eligible households, by education of household head, Wilcox, Monroe, and Washington counties, Alabama, 1981.

Program/Utilization	Less Than 8 Years	8 Years or More	Cramer's V
	N	N	
Food Stamps			
Participants	34	26	
Needy nonparticipants	17	8	.25 <sup>a/</sup>
Not-in-need	13	20	
Medicaid			
Participants	3	7	
Needy nonparticipants	5	9	.45
Not-in-need	0	6	
Medicare (65 and over)			
Participants	30	12	
Needy nonparticipants	9	5	.19
Not-in-need	11	8	
County health services			
Participants	3	5	
Needy nonparticipants	30	28	.23 <sup>b/</sup>
Not-in-need	49	136	

a/Significant at .1 level.

b/Significant at .05 level.

**Table 5. Program utilization among eligible households, by sex of household head, Wilcox, Monroe, and Washington counties, Alabama, 1981.**

Program/Utilization	Female	Male	Cramer's V
	N	N	
Food Stamps			
Participants	21	39	
Needy nonparticipants	12	13	.11
Not-in-need	14	19	
Medicaid			
Participants	7	3	
Needy nonparticipants	2	12	.51 <sup>b/</sup>
Not-in-need	3	3	
Medicare (65 and over)			
Participants	22	20	
Needy nonparticipants	10	4	.10
Not-in-need	12	7	
County health services			
Participants	4	4	
Needy nonparticipants	17	41	.12
Not-in-need	43	142	

<sup>b/</sup>Significant at .05 level.

the former, and significant (though relatively weak) in the latter.

Table 6. Program utilization among eligible households, by income level, Wilcox, Monroe, and Washington counties, Alabama, 1981.

Program/Utilization	Less than \$5,000	5,000 - 12,999	13,000 and over	Cramer's V
	N	N	N	
Medicare (65 and over)				
Participants	22	19	1	
Needy nonparticipants	10	4	--	.22
Not-in-need	6	13	--	
County health services				
Participants	6	2	--	
Needy nonparticipants	29	24	5	.24 <sup>b/</sup>
Not-in-need	31	91	63	

<sup>b/</sup>Significant at .05 level.

As noted in the beginning of this report, underutilization of social welfare programs rarely receives top billing. However, the data presented here regarding needy nonparticipants warrants specific attention. The conclusions are unambiguous. Those household heads eligible for, and in need of assistance but not participating are more likely to be black, poorly educated, female (with the exception of medicaid), and low-income. In the case of food stamps, two-thirds have less than eight years of education. In the case of county health services, three-fourths are black. Half have household incomes under \$5,000. In other words, within a well-defined subset of the sample, underparticipation is a consistent problem.

The previous discussion has been concerned with the relationship between program participation and individual-level, socioeconomic

variables. Contextual data presented in Table 7 are consistent with the previous findings. There is a relationship between the use of food stamps, Medicaid and health services on one hand, and county context on the other. Insofar as the counties differ in terms of their socio-economic makeup, this relationship was expected. As the proportion of black, poor and less educated persons in a given county changes, so does the level of service utilization.

It can also be hypothesized that institutional factors (e.g., program administration, informal provision of services, etc.) are at work on the county level. Testing this hypothesis, however, would require careful measurement of these institutional variables.

A preview of this analysis is possible to the extent that systematic county differences in utilization can be identified, while controlling for race, income, or educational effects. To test whether these differences exist, two sets of conditional probabilities must be examined, first, within the eligible subset (between participants and nonparticipants) and second, within the eligible nonparticipant subset (between the needy and those not-in-need).

Because of its near-fifty percent participation rate, the food stamp program is the easiest to examine with statistical techniques. Furthermore, the preceding analysis suggests that race and county are strongest and most consistent in their effects on program utilization. Thus, finding the conditional probabilities of food stamp utilization by race and county is an obvious starting point for multivariate analysis. To compare the counties systematically, it is necessary to compute the conditional probabilities, i.e., percentages, of (1) participants among

Table 7. Program utilization among eligible households, Wilcox, Monroe, and Washington counties, Alabama, 1981.

Program/Utilization	Wilcox	Monroe	Washington	Cramer's V
	N	N	N	
Food Stamps				
Participants	32	18	10	.30 <sup>b/</sup>
Needy nonparticipants	12	9	4	
Not-in-need	3	15	15	
Medicaid				
Participants	4	5	0	.26
Needy nonparticipants	8	3	3	
Not-in-need	3	3	1	
Medicare (65 and over)				
Participants	18	16	8	.19
Needy nonparticipants	4	9	1	
Not-in-need	6	7	6	
County health services				
Participants	3	2	3	.31 <sup>b/</sup>
Needy nonparticipants	35	20	3	
Not-in-need	32	80	73	

<sup>b/</sup>Significant at the .05 level.

eligibles and (2) needy among nonparticipants for each county. If no systematic differences between the counties exist, these percentages should be the same for each county and for each race. Results of the analyses are presented in Table 8.

Table 8: Percentage distribution of food stamp participants among eligibles and needy nonparticipants among all nonparticipants by race and county, Alabama, 1981

County	Participants		Needy Nonparticipants	
	White	Black	White	Black
	%	%	%	%
Washington	37.5	20.0	20.0	25.0
Monroe	16.7	62.5	26.7	55.6
Wilcox	0.0	71.1	50.0	84.6

It is apparent that as the percentage of either racial group increases across the three counties, so does participation by that race. For example, in the predominantly black Wilcox county, none of the eligible whites utilized the food stamp program. Alternatively, in the predominantly white Washington county, eligible whites participated at a rate of 37.5 percent. The same consistent pattern emerges among black. Results of both dummy dependent variable regression analysis and chi-square analysis of the 2x6 table (Kuechler, 1980) indicate that these differences in conditional probabilities are significant at the .05 level. The conditional probabilities for needy nonparticipants are equally consistent. In this case, the percent needy varies in the same direction as the county income level. In Wilcox county, the poorest of the three, the proportion of needy nonparticipants among eligibles is highest for both races. (As indicated above, blacks are more likely to



be needy nonparticipants.) These differences were also significant at the .05 level.

These findings encourage further study of the institutional factors that affect program use. For example, it is possible that whites in a primarily black county view social services as programs directed towards the black population, and vice versa. Likewise, administration of social programs may be more conservatively managed in lower-income counties, thus discouraging use by certain segments of the needy population. For example, the potential case load per qualified professional may be greater in poorer counties. It is also possible, if not probable, that social services are more often supplemented or replaced by assistance from family, churches or other community organizations in the wealthier counties, hence the smaller percent of needy among nonparticipants in Washington. Alternatively, poor may simply do without while claiming they do not need the program. These questions cannot be addressed with the data presented here.

In sum, these data support hypotheses regarding the relationship between program use on one hand, and household characteristics and county-level variables on the other. It is expected that future analysis of the larger ten-state data base will confirm these results.

## REFERENCES

- Blalock, Hubert M., Jr. 1972. *Social Statistics*. New York: McGraw Hill,
- Dagata, E.M., L.M. Ghelfi, M.D. Fryer. 1982. *A Handbook of Selected Federal Social Service and Income Transfer Programs*. Washington, D.C.: ERS.USDA Staff Report AGES 820217
- Kish, Leslie. 1965. *Survey Sampling*. New York: John Wiley.
- Kuechler, Manfred. 1980. "The analysis of nonmetric data; the relation of dummy dependent variable regression using an additive saturated Grizzle-Starnner-Koch model." *Sociological Methods and Research* 8:4:369-87.
- Nie, Norman H., C. H. Hull, J. G. Jenkins, K. Steinbrenner, Dale H. Bent. 1975. *Statistical Package for the Social Sciences*. New York: McGraw Hill.
- Rungeling, Brian, L., Smith, V., Briggs, Jr., and J. Adams. 1977. *Employment, Income and Welfare in the Rural South*. New York: Praeger.
- Tai, Simon W. 1978. *Social Science Statistics, Its Elements and Applications*. California: Goodyear Publishing Company.
- Okoro, Arthur. 1982. *Utilization of Government Services by Residents of Rural Low Income Counties in Alabama*. M.Sc. Thesis, Alabama A&M University, Normal, Alabama.
- Wheelock, Gerald C., and Ann P. Warren. 1978 "Community social structure and school free lunch participation." Pp. 182-92 in *Rural Research in USDA, Hearings before the subcommittee on Agricultural Research and General Legislation*. Also *School Food Service Research Review* 2(2): 92-97.
- Wheelock, Gerald C., Randall P. White, and Robert Phillips. 1983. "Sample design and multilevel objectives: Ten Southern states household survey in low income, rural counties." Paper presented at the Annual Meetings of the Southern Association of Agricultural Scientists (Rural Sociology Section), Atlanta, Georgia.

APPENDIX A

The following questions on service utilization were asked of RRI respondents:

1. Have you used \_\_\_\_\_ in the past year?  
(name of service)

(If the respondent answered "no", the interviewer asked the following question.)

2. Why have you not used \_\_\_\_\_ in the past year?  
(name of service)

\_\_\_\_\_ a. I am ineligible because my income is too high.

\_\_\_\_\_ b. I am ineligible because I am too old.

\_\_\_\_\_ c. I have a transportation problem.

\_\_\_\_\_ d. I don't need the service.

\_\_\_\_\_ e. I don't know what the service is.

\_\_\_\_\_ f. I don't know where to go for this service.

\_\_\_\_\_ g. I didn't know this service was available.

\_\_\_\_\_ h. Other reason.