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ABSTRACT Despite a strong economy, the use of private, non-profit food assistance is increasing. To determine how single parenthood affects the use of both public and private food assistance, a sample of food bank clients and low-income, food-needy non-clients in East Alabama was interviewed. Overall, single-parent food-pantry clients indicated higher levels of food insecurity than other groups, but the non-clients who were not single parents also indicated high levels of need. Although 42 percent of food bank clients were single parents, results showed that married couples with children were more highly represented among the food bank clients than among food-needy individuals who do not use the pantry. Single parents were more likely than others to receive food stamp and Temporary Assistance to Needy Families (TANF) benefits, a finding that corresponds to this group's lower incomes and larger family sizes.

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It is well known that families with children headed by a single mother are more likely to be poor than two-parent families. Single-parent families often struggle economically, because only one adult is able to work, and usually little help is received from the absent parent (Levitan, Magnum and Magnum 1998). Single parents are also far more likely than others to live in food insecure households (Andrews et al. 2000). An important reason for concern about the food status of low-income households is that there is mounting evidence that food insecurity is related to a variety of health and behavioral problems in children (see, for example, Hamelin, Habicht and Beaudry 1999, or Murphy et al. 1998, among others).

As the nation reaches the five-year time limit on cash welfare assistance under the Personal Responsibility and Work Opportunity Reconciliation Act (PRWORA) of 1996, there is increased concern among critics of this legislation that some families will experience severe hardship, hunger, and homelessness (Polit, London and Martinez 2000). While welfare reform was expected to cause large reductions in the number of families receiving cash assistance, food stamp rolls were not expected to be much affected. In recent years, however, the number of food stamp recipients has decreased rapidly, with the decrease only partly explained by increased family income or changes in eligibility (Wilde et al. 2000). At the same time, some evidence suggests that the demand for private food aid has increased sharply (U.S. Conference of Mayors 2000). These changes in the welfare program and the unexplained drop in food stamp rolls make it especially important to understand the food needs of single-parent families and the factors affecting their use, or lack of use, of available private and public food assistance programs.

The purpose of this study is to examine low-income, food-needy single parent households and to determine how their food needs and coping mechanisms compare to those of other low-income, food-needy households. Our study area is that covered by the East Alabama Food Bank (EAFB), which is part of the Second Harvest network. Face-to-face interviews were conducted with a total of 216 low-income food-bank clients and eligible non-clients in the area. These interviews provided a profile of respondents' characteristics, needs, and attitudes about food banks. In addition, the survey asked respondents about use of federal programs, and what effects, if any, recent welfare changes have had on their households.

Food Insecurity and Single Parenthood

Food insecurity is widely defined as "limited or uncertain availability of nutritionally adequate and safe foods or limited or uncertain ability to acquire acceptable foods in socially acceptable ways" (Anderson 1990). Food insecurity may be accompanied by moderate or severe hunger. Since 1995, the USDA has monitored food insecurity in the United States via household surveys. According to the 1999 data, 10 percent of all households were food insecure, including 3 percent in which people were hungry at times during the year because there was not enough money for food.

Of all household types, single-female headed households were found to experience the highest rates of food insecurity. Nationwide, nearly 30 percent of single-female headed households with children were found to be food insecure, triple the rate for the nation overall (Andrews et al. 2000). These findings are supported by other research, which indicates that single-parenthood is a risk factor for food insecurity (Frongillo et al. 1996; Olson 1997). The relationship between food insecurity and single-parenthood is not surprising given that single-parent families overwhelmingly represent the largest demographic group of poor people (Bianchi 1999).

Although hunger and food insecurity are often viewed as "inner city" problems, Andrews et al. (2000) show that food insecurity can be a large problem in rural areas as well. While the food insecurity rate for inner cities, 13.8 percent of households, was the highest for any metro classification, rural residents also experienced above-average rates of food insecurity. Of rural households, 10.1 percent were food insecure compared with 7.7 percent for households in suburbs and other metropolitan areas outside central cities (Andrews et al. 2000). Results of this survey are thus consistent with Shotland and Loonin's (1998) evidence that impoverished rural residents experience special problems with diet.

Food Bank Clients

Several published studies provide some insights into who is using food banks and why. Kirk and Rittner (1993) surveyed 1,083 elderly daytime meal program recipients in a south Florida community. Average monthly income for those surveyed was \$443 per month, with

a range of \$242 to \$710. Although most of the respondents would have been eligible for food stamps, only 18 percent received them. Over half of those surveyed said they did not participate because they did not want to be identified as welfare recipients. A smaller percentage (14.3 percent) indicated that they did not apply for food stamps because they did not know how. The under-use of food stamps by elderly poor is consistent with findings by Coe (1983); however, Coe concluded that lack of information, rather than fear of stigma, was the major barrier to application.

Clancy, Bowering, and Poppendieck (1991) profiled the characteristics of food pantry clients in the New York City and Upstate New York areas. The food pantry clients in the Upstate sample were disproportionately white females with children. By contrast, the city sample had a larger percentage of older African-Americans, without children at home. The Upstate sample had more long-term clients (more than 3 years) than the city group.

America's Second Harvest (1998) recently profiled the characteristics of their clients. Of client households, 67 percent had an annual household income of less than \$10,000. Many clients were unemployed or disabled. Forty percent of clients received food stamps, but many reported that the stamps did not last the entire month. Thirty-nine percent of food stamp recipients reported having their benefits cut.

Two studies, one by Smith and Hoerr (1992) and the other by Daponte et al. (1998) have directly compared food pantry clients and non-clients. Smith and Hoerr interviewed 73 single mothers to determine any difference in food management behaviors of food pantry current clients, non-clients, and past clients. The mean age of the single mothers in the study was 25.5 years. Over half the women were white and 30 percent were African-American. The authors reported that they found only a few differences in the clients and non-clients. The current clients tended to have more children, and often had older children with larger appetites, than did non-clients.

Daponte et al. (1998) compared 400 food pantry clients and low-income non-clients in Allegheny County, Pennsylvania. Respondents were interviewed between April and July 1993. All respondents were below 185 percent of the poverty level. Results showed that pantry clients were more likely to have difficulty feeding their families, run out of money for food, and serve less nutritious foods than non-clients. The median length of food pantry use was two years. Thus, food

pantries in this area were clearly serving more chronic cases as opposed to the emergency cases they were created to serve.

Study Area

The study area is the six-county region of Alabama served by the East Alabama Food Bank (EAFB). EAFB is a subsidiary distribution organization of the Montgomery Food Bank. In turn, both agencies are part of the Second Harvest network. EAFB serves more than 100 agencies in a six county area with a current average disbursement of 110,000 pounds each month. The EAFB provides food to agencies such as churches and other organizations, which in turn distribute food to clients. Member agencies of the East Alabama Food Bank are found in Lee, Macon, Chambers, Tallapoosa, Bullock, Randolph, and Russell Counties, with the greatest concentration of member agencies (over 30) in Lee County.

The urbanized portion of Lee County, where the EAFB is located, has two neighboring cities (Auburn and Opelika) with combined populations of over 50 thousand people. More than 70 percent of the Lee County population lives in this urban area. Macon County, by contrast, has less than 50 percent of its population in urban areas. Macon and Bullock Counties have over 70 percent non-white population, while Randolph, Lee, and Tallapoosa Counties have around 25 percent minority population and Russell around 39 percent (ADECA 1997).

Poor Alabama families are much less likely to receive cash welfare benefits than are families in the nation as a whole. The Alabama Department of Human Resources reports that there are currently only about 19,000 families receiving cash welfare statewide. About 17 percent of poor children in Alabama are covered by cash welfare assistance, compared to nearly 50 percent nationally (Holcomb et al. 2001). The reason for this low enrollment is not difficult to discern: Alabama provides the lowest cash welfare benefits in the nation. Its maximum monthly benefit for a family of three is \$164 per month, compared to the national average of \$421 per month. The state also enforces strict penalties for non-compliance with work requirements under welfare reform, including, in some cases, loss of food stamp benefits. (See Holcomb et al. 2001 for a full discussion of penalties for non-compliance.) For the working poor, the income cut-

off level for eligibility for subsidized childcare also is lower in Alabama than in most other states. Alabama sets eligibility at 125 percent of the poverty line, compared to an average across all states of 178 percent of poverty. Even those eligible for subsidized childcare may not receive it, because of long waiting lists for the service (Holcomb et al. 2001).

Data Collection

Data were collected from a sample of recipients and food-needy non-recipients of food from the member agencies of the East Alabama Food Bank. Using probability in proportion to size methods, a sample of six rural and six urban member agencies were selected, to ensure that our respondents represented the geographic diversity of the area. Specifically, "food pantries," member agencies that distribute food for home preparation and consumption, were targeted.

As a first step in the process of instrument development, semi-structured interviews with pantry supervisors were conducted to assess the nature of problems and issues associated with the process of rendering food assistance to their client base. We also sought to discover, via open-ended questions, any obstacles agency representatives believe might be preventing needy individuals in the community from receiving aid.

A sample of ten clients from each of the twelve pantry locations was selected to be interviewed. Ultimately, 96 of these individuals were surveyed via a face-to-face interview using a standardized instrument.

The following points were addressed in the survey:

- Demographic characteristics of the clients including family size, age of family members, race, and education levels.
- Economic characteristics of the family, such as sources and amount of household income, including transfer payments.
- Reasons for need of food assistance such as disability, unemployment, low wages, or loss of welfare benefits.
- Level of "food insecurity" in household.
- Transportation needs and availability, such as age and make of family car and closeness to bus routes.

- History of food pantry use including how often the client uses the pantry, what food items are received, how long the client has used the pantry and how far he or she must drive or walk to use the pantry.
- Perceived obstacles to the client's own pantry use, including how pantry hours fit schedules, whether distance to the pantry poses a problem, whether food that the client likes and knows how to prepare is available, and the client's own assessment of any stigma associated with pantry use.

Single parent households in the sample were identified via a survey question. Respondents were directly asked whether they consider themselves a single parent.

To find food-needy non-clients, we asked the interviewed clients to refer the interviewer to a "person they know who has trouble getting enough food but who does not receive any food assistance." However, these referrals did not produce a sufficient sample of needy non-clients. (Only two successful referrals were generated by this method.) At three sites, which offered an array of social services, we were able to directly interview low-income, food-needy people who did not use the food pantry.

To find the remaining non-clients, we contacted the local housing authority and subsequently interviewed individuals at housing projects in proximity to the pantry sites. Two pantry sites were close to a grocery store with a low-income customer base. To find non-client matches for these sites, we thus interviewed customers of the grocery store, based on a response to a screening question concerning whether they ever lacked enough money to buy food. In all, 216 people were interviewed, 96 clients, and 120 non-clients.

Results

Household characteristics of single parents and other respondents are summarized in Table 1. Most respondents were female, but the single-parent clients (95 percent) and non-clients (93 percent) consisted almost entirely of women. Of the rest of the sample, 84 percent of clients and 73 percent of non-clients were women. African-Americans were more highly represented among single parents than among the rest of the sample. Seventy-eight percent of single-parent

food-pantry clients and 92 percent of single-parent non-clients are African-American, compared to 50 percent and 68 percent, respectively, in the rest of the sample. With the exception of a few Native Americans and Hispanics, all other respondents are white.

The majority of single-parent clients (73 percent) and non-clients (59 percent) were between 30 and 50 years old. Of the rest of the sample, 40 percent of clients and 30 percent of non-clients were in this age group. The rest of the sample had a noticeable percentage of respondents over 70. On average, household sizes tended to be small, with most respondents having less than three people in the household. Single-parent clients had the highest percentage of respondents with four to six people in the household, 47 percent, compared to 33 percent of the single-parent non-clients. Of the rest of the sample, 36 percent of the clients and 10 percent of non-clients had four to six people in the household. In addition, 80 percent of single-parent clients and 83 percent of single-parent non-clients had children under 17 living with them, compared to only 56 percent and 24 percent, respectively, in the rest of the sample (table 1). The larger household size of single-parent clients with only one income-earner could be a significant burden on the family's financial situation.

Results from survey items relating to education, income, and employment are listed in Table 2. Of the single-parent respondents, 58 percent of clients and 65 percent of non-clients had at least a high school education, compared to 57 percent and 47 percent, respectively, in the rest of the sample. Only a very small percentage of respondents had completed college.

A slightly higher percentage of single parents reported working outside the home than did the respondents in the rest of the sample (Table 2). Thirty-three percent of the single-parent food-pantry clients and 50 percent of the non-clients were employed, compared to 25 percent and 23 percent, respectively, in the rest of the sample. Of those working, the majority worked full-time jobs. For those not working, most had been unemployed for more than two years.

Because of the higher percentage of elderly respondents in the non-single-parent group, these respondents were more likely to be retired or disabled. However, a large percentage of single-parent clients (40 percent) and non-clients (23 percent) were also disabled. Disabilities may cause especially serious financial problem when the disabled person is solely responsible for supporting an entire family.

Table 1. Selected Demographic Characteristics of Respondents

Item	Single Parent		Other		X-Square
	Client pct	Non-Client pct	Client pct	Non-Client pct	
Gender					
Male	2	7	16	27	13.3*
Female	95	93	84	73	
Race					
African American	78	92	50	68	24.7*
Caucasian	20	8	48	30	
Other	3	0	2	2	
What is your age?					
17-20	0	2	4	8	50.3*
21-25	5	12	14	7	
26-29	0	8	9	5	
30-39	40	36	18	9	
40-49	33	23	22	22	
50-59	10	15	13	13	
60-69	10	3	9	10	
70+	3	0	9	18	
Household size					
One person	5	5	26	40	65.0*
2-3	40	60	36	47	
4-6	47	33	36	10	
7 or more	8	2	2	3	
Children 17 or younger in household					
Yes	80	83	56	24	49.7*
No	20	17	44	76	
Number	(40)	(60)	(56)	(60)	

*p < 0.05

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

Table 2. Education, Income, and Employment of Respondents.

Item	Single Parent		Other		X-square
	Client	Non-Client	Client	Non-Client	
	pct	pct	pct	pct	
Education					
Some grade school	0	5	11	13	19.4*
Grade School	8	2	0	8	
Some High School	35	28	32	30	
High School or GED	35	42	27	28	
Business/Trade School	10	3	5	0	
Some College	8	17	16	15	
Completed B.A. or B.S.	5	3	9	3	
Household Income					
Under \$5000/yr.	26	32	15	7	23.6*
\$5000 to \$9,999	46	35	24	54	
\$10,000 to \$14,999	23	19	16	20	
\$15,000 to \$19,999	0	11	24	7	
\$20,000 to \$24,999	5	2	13	2	
\$25,000 to \$29,999	0	0	6	4	
\$30,000 or more	0	2	4	7	
Employment					
Working	33	50	25	23	12.2*
Unemployed	18	23	13	13	
Disabled	40	23	32	42	
Retired	3	2	13	22	
Housewife	5	0	18	5	
Student	3	5	2	2	
Number	(40)	(60)	(56)	(60)	

*p < 0.05

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

Results show that even though a higher percentage of single parents had at least a high school education and were working full-time jobs, they were more likely to fall in the lower income brackets than were respondents in the rest of the sample. Seventy-two percent of single-parent clients and 67 percent of non-clients had household incomes below \$10,000 per year, compared to 38 percent of clients and 61 percent of non-clients in the rest of the sample. This figure includes all income coming into the home, including child support and transfer payments.

In summary, the respondents tended to be low-income women with low education levels. Most single-parent households were headed by African-American women. On average, household sizes tended to be small, but single parents were more likely to have larger households with more children in the home. Single parents were more likely to be employed than respondents in the rest of the sample. The high percentage of respondents in the lower-income categories indicates considerable risk for food insecurity.

Food Security

Questions were asked to assess the level of the respondent's food security. Several of these questions were taken from the USDA food security module, but the full USDA module was not incorporated. The majority of all respondents indicated they sometimes run out of money to buy food (Table 3). Ninety percent of single-parent food-pantry clients and 77 percent of single-parent non-clients indicated they sometimes or often ran out of money for food, compared to 71 percent of clients and 83 percent of non-clients in the rest of the sample. The number of single-parent clients running out of money for food (90 percent) was higher than for food pantry clients who were not single parents (71 percent), but the difference in response across categories was not statistically significant.

When respondents were asked to describe the food eaten in their household, 23 percent of single-parent food-pantry clients and 25 percent of single-parent non-clients indicated they sometimes or often did not have enough food to eat, compared to 18 percent and 25 percent, respectively, in the rest of the sample. Forty percent of single-parent food-pantry clients and 30 percent of the non-clients reported sometimes or often going to a friend or relative's home for a meal

Table 3. Food Security of Respondents

Item	Single Parent		Other		X-square
	Client	Non-Client	Client	Non-Client	
	pct	pct	pct	pct	
Do you ever run out of money to purchase food?					
Never	10	23	29	17	10.9
Sometimes	53	50	39	63	
Often	38	27	32	20	
Do you have enough food to eat?					
Yes	10	32	36	36	12.9
Yes, but not always the kinds we want.	68	43	46	39	
Sometimes not enough	15	20	13	20	
Often not enough	8	5	5	5	
Did you go to someone's home for a meal because you were out of food?					
Never	60	70	65	58	4.1
Sometimes	30	25	32	37	
Often	10	5	4	5	
Did you ever worry if your food would run out before you got money to buy more?					
Never true	20	43	38	48	10.3
Sometimes	70	48	49	40	
Often true	10	8	13	12	
Did you ever cut the size of your meals or skip meals because there was not enough food?					
Never	43	67	63	63	4.1
Sometimes	45	28	25	28	
Often	13	5	13	8	
Did you ever not eat for a whole day because there was not enough money for food?					
Never	78	92	82	82	4.5
Sometimes	18	7	13	13	
Often	5	2	5	5	
Number	(40)	(60)	(56)	(60)	

*p < 0.05

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

because of lack of money for food. Of the rest of the sample, 35 percent of clients and 42 percent of non-clients reported sometimes or often going to the home of friend or relative for a meal.

Other questions related to the extent to which respondents worry about not having enough money for food. Eighty percent of single-parent food-pantry clients and 57 percent of non-clients indicated they sometimes or often worry about running out of food, compared to 62 percent and 52 percent, respectively, in the rest of the sample. Single-parent clients were most likely to indicate that adults in the household had cut the size of their meals or skipped meals in the past year because of insufficient money for food (Table 3). Of those who had cut the size of their meals or skipped meals, 23 percent of single-parent clients and 15 percent of non-clients reported cutting the size or skipping meals more than once a month, compared to 33 percent and 29 percent, respectively, in the rest of the sample. The majority of adults in all categories had not gone a whole day without eating in the past year. But, again, the single-parent clients were most likely to report doing so, although the difference was not statistically significant.

Results from questions relating to food security among respondents' children are shown in Table 4. The non-clients who were not single parents reported the highest positive response, 39 percent, to sometimes sending their child to someone else's home for a meal because of lack of money for food. Single-parent clients showed the second highest positive response with 18 percent sometimes sending a child to someone's home for a meal and 6 percent doing so often.

Food insecurity among children shows a more severe level of food need, since adults only cut the size of children's meals or have their child skip a meal in extreme cases of need. The majority of respondents did not report such need. Only 12 percent of single-parent clients and 14 percent of non-clients reported cutting the size of their child's meal sometimes, compared to 10 percent and zero percent, respectively, in the rest of the sample. Only 3 percent of single-parent food-pantry clients and 3 percent of non-clients reported having a child skip a meal in the past year because of lack of money for food. None of the respondents in the rest of the sample indicated that a child had skipped a meal, and no respondents in any category said that a child had gone an entire day without eating. However, it is possible that respondents would be afraid or ashamed to admit in a face-to-face interview that a child had skipped meals.

Table 4. Food Security of Respondents' Children

Item	Single Parent		Other		X-square
	Client pct	Non-Client pct	Client pct	Non-Client pct	
Did you ever send or take your child to someone's home for a meal because you were out of food?					
Never	76	73	84	62	6.2
Sometimes	18	25	16	39	
Often	6	2	0	0	
Did you ever cut the size of your children's meals because there wasn't enough money for food?					
Never	88	87	90	100	2.2
Sometimes	12	14	10	0	
Did any of the children ever skip a meal because there wasn't enough money for food?					
Never	97	96	100	100	1.7
Sometimes	3	4	0	0	
Did your child ever not eat for a whole day because there wasn't enough money for food?					
Never	100	100	100	100	NC
Number	(32)	(50)	(31)	(13)	

*p < 0.05 NC = not computed

Questions only asked if children in home

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

Overall, it appears that the majority of respondents in each category have had difficulty obtaining food at some point in their lives. Statistically significant differences in responses to questions about food insecurity were not found across categories, although the single-parent clients showed slightly higher levels of positive response to some questions. Respondents not using a food pantry often indicated high levels of need in response to these questions. Since these non-clients appear to have difficulty obtaining food, it is important to understand what factors keep them from using this resource.

Government Programs

Since the majority of respondents indicated they sometimes have difficulty obtaining food, and many of the respondents earned less than \$10,000 per year, it is important to understand how government programs serve as a form of support for these people. Table 5 shows the results from questions related to respondents' use of food stamps. Food stamp benefit levels are set nationally, so that Alabama residents receive the same level of benefits as those in similar circumstances in other states. (The maximum monthly benefit for a family of three is \$341 per month in stamps.) The Alabama Department of Human Resources reports that there are currently about 156,000 families receiving food stamps statewide.

Single-parent respondents were more likely to receive food stamp benefits than respondents in the rest of the sample. About half of single-parent clients and non-clients received food stamps, compared to 23 percent and 32 percent, respectively, in the rest of the sample. In addition, a higher percentage of single-parent food stamp recipients had received food stamps for more than two years. Among single parents, food stamp use was about the same for the pantry clients and non-clients, indicating that for this group at least, pantry services did not appear to be a substitute for food stamps. For the rest of the sample, the results were less clear. Those who used the pantry were somewhat less likely to receive food stamps, perhaps indicating that for this group, the private and public services substitute to a degree.

Of those who do receive food stamps, the majority (60-70 percent across categories) reported that the stamps do not last all month. Almost half of all single-parent respondents reported having their food stamp benefits reduced in the past year, compared to 69 percent of

Table 5. Food Stamp Experiences of Respondents

Item	Single Parent		Other		X-square
	Client	Non-Client	Client	Non-Client	
	pct	pct	pct	pct	
Are you currently receiving food stamps?					
Yes	50	53	23	32	14.5*
No	50	47	77	68	
Number	(40)	(60)	(56)	(60)	
**How long have you been receiving food stamps?					
One month or less	16	0	0	12	14.9
Between 1 and 6 months	5	19	8	18	
Between 6 months and 1 year	5	0	15	6	
Between 1 and 2 years	11	13	23	18	
More than 2 years	63	68	54	47	
**How many weeks do your food stamps usually last?					
1 week or less	11	19	39	25	14.4
2 weeks	16	19	8	25	
3 weeks	42	28	23	6	
4 weeks	26	31	31	38	
More than 4 weeks	5	3	0	0	
**In the past 12 months, have your food stamps been reduced, stayed about the same, or increased?					
Reduced	44	45	69	38	7.8
Stayed the same	28	36	15	56	
Increased	28	19	15	6	
**In the next 12 months do you expect that your food stamp benefits will be reduced, stay about the same, or increase?					
Reduced	31	37	67	39	11.7
Stay the same	54	52	0	62	
Increase	15	11	33	0	
***Did you receive food stamps in the past 12 months, but they were stopped by the agency?					
Yes	20	21	16	7	3.2
No	80	79	84	93	
Total Number	(40)	(60)	(56)	(60)	

*p<.05 ** Question asked only of those who received food stamps.

*** Question asked only of those who did not receive food stamps.

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food

clients and 38 percent of non-clients in the rest of the sample. Reasons given for cuts varied. Some respondents reported higher income as the reason for food stamp cuts, but others did not appear to know the cause. Some respondents indicated that having their benefits reduced had been difficult for the family, but this was not always the case. For some, getting a higher paying job resulted in lower food stamp benefits. For others, an increase in Supplemental Security Income (SSI) benefits led to a direct decrease in food stamp benefits, but it did not affect the family since they were receiving an increase in another form of support.

The large number of respondents not receiving food stamps is troubling considering the degree of food insecurity indicated in the food security section (Tables 3 and 4). Fifty percent of single-parent clients and 47 percent of non-clients were not receiving food stamps, compared to 77 percent and 68 percent, respectively, in the rest of the sample. In the food security questions 90 percent of single-parent clients indicated they sometimes or often ran out of money to buy food as did 77 percent of single-parent non-clients. The high percentage of respondents not receiving food stamp benefits, and the high percentage reporting reduction, elimination, or expected reduction in benefits, is consistent with the recent decline in participation in the Food Stamp Program nation-wide (Wilde et al. 2000). It is also noteworthy that some respondents did not seem to understand why their benefits had been cut or eliminated.

Respondents who were not receiving food stamps were asked if they had applied for them. About a third of those not currently receiving food stamps said they had applied for them. Most of this group had already been turned down, but a small group was still waiting for their application to be processed. In Alabama, non-emergency food stamp applications are processed within thirty days (Alabama Department of Human Resources 2001).

In Table 6, Temporary Assistance to Needy Families (TANF) experiences are summarized. In our sample, single parents were the only respondents receiving TANF benefits, and, consistent with the statewide figures, only a very small percentage reported doing so. A slightly higher percentage of single-parent non-clients (13 percent) received TANF than was the case for the pantry clients (10 percent), but the numbers in both cases were small. The single-parent non-clients were also more likely to report receiving TANF benefits for more than two years. None of the single-parent clients experienced reductions

Table 6. TANF Experiences of Respondents

Item	Single Parent		Other		X-square
	Client	Non-Client	Client	Non-Client	
	pct	pct	pct	pct	
Are you currently receiving TANF benefits?					
Yes	10	13	0	0	15.3*
No	90	87	100	100	
**How long have you been receiving TANF?					
Between 1 and 6 months	0	25	0	0	5.3
Between 6 months and 1 year	25	0	0	0	
Between 1 and 2 years	25	0	0	0	
More than 2 years	50	75	0	0	
**In the past 12 months, have your TANF benefits been reduced, stayed about the same, or increased?					
Reduced	0	37	0	0	2.0
Stayed the same	100	63	0	0	
**In the next 12 months do you expect that your TANF benefits will be reduced, stay about the same, or increase?					
Reduced	25	33	0	0	2.0
Stay the same	75	67	0	0	
***Were your benefits discontinued in the past year?					
Yes	0	2	0	0	2.9
No	100	98	100	100	
Number	(40)	(60)	(56)	(60)	

*p<0.05 ** Question asked only of those who received TANF.

*** Question asked only of those who did not receive TANF.

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

Table 7. Other Government Programs

Item	Single Parent		Other		X-square
	Client	Non-Client	Client	Non-Client	
	pct	pct	pct	pct	
Free or reduced-cost meals for the elderly?					
Yes	5	0	7	5	4
No	95	100	93	95	
**Reduced-cost meals at school?					
Yes	72	80	52	38	12.2*
No	28	20	48	62	
**Free or reduced-cost food at a day-care or Head Start program?					
Yes	16	14	10	8	0.9
No	84	86	90	92	
**Food through the WIC program?					
Yes	25	28	35	38	1.4
No	75	72	65	62	
SSI benefits?					
Yes	48	32	40	47	3.7
No	53	68	60	53	
**Government assistance for daycare?					
Yes	13	8	3	0	3.2
No	87	92	97	100	
Medicare?					
Yes	15	18	45	35	14.8*
No	85	82	55	65	
Medicaid?					
Yes	60	52	38	42	5.8
No	40	48	63	58	
Number	(40)	(60)	(56)	(60)	

*p<0.05 ** Asked only of respondents with minor children living at home

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

Table 8. Experiences of Food Bank Users

Item	Single Parent	Other	X-square
	pct	pct	
How long have you been coming to this food pantry?			
Less than 1 month	13	4	10.9
1-3 months	15	16	
4-6 months	13	11	
7-9 months	0	7	
10-12 months	13	20	
More than 12 months	46	43	
How often do you get food from the food pantry?			
Once a week	3	13	1.7
Once a month	26	28	
Every now and then	72	59	
Will you have to come here to get food three months from now?			
Yes	57	57	0.4
I hope not	20	25	
No	23	18	
How satisfied are you with the quality of food?			
Very satisfied	47	47	2.9
Satisfied	37	34	
Somewhat satisfied	13	15	
Dissatisfied**	3	4	
How satisfied are you with the amount of food?			
Very satisfied	41	39	4.3
Satisfied	39	41	
Somewhat satisfied	10	19	
Dissatisfied**	11	2	
How satisfied are you with the variety of food?			
Very satisfied	40	33	3.6
Satisfied	40	46	
Somewhat satisfied	16	21	
Dissatisfied**	6	0	
Number	(40)	(56)	

* $p < 0.05$

** Includes those who said they were "very dissatisfied."

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food

in TANF in the past year, while 38 percent of the single-parent non-clients on TANF had their TANF benefits reduced. Twenty-five percent of single-parent food-pantry clients and 33 percent of single-parent non-clients currently receiving TANF expected benefits to be reduced in the next year.

Other government programs which provided benefits to respondents are summarized in Table 7. The majority of single-parent food-pantry clients (72 percent) and non-clients (80 percent) with minor children living at home reported that their children received reduced-cost meals at school, compared to only 52 percent and 38 percent, respectively, for respondents with minor children in the rest of the sample. The difference was statistically significant at the 5 percent level. Only a small percentage of respondents received free or reduced cost meals at a day care or Head Start Program, and few received government assistance for day care. Twenty-five percent of the single-parent food-pantry clients and 28 percent of non-clients received food through the WIC program, compared to 35 percent and 38 percent, respectively, in the rest of the sample, but the difference was not statistically significant at the 5 percent level.

Sixty percent of single-parent clients and 52 percent of non-clients received Medicaid, compared to only 38 percent of clients and 42 percent of non-clients in the rest of the sample. Respondents in the rest of the sample were more likely to be over age 55, and thus, received Medicare as opposed to Medicaid. Only 15 percent of single-parent clients and 18 percent of single-parent non-clients received Medicare, compared to 45 percent and 35 percent, respectively, in the rest of the sample.

The Supplemental Security Income (SSI) program was an important source of income for respondents in all categories (Table 7). The highest positive response rate to this item occurred among food pantry clients who were single parents (48 percent) and non-clients in the rest of the sample (47 percent). Roughly the same percentage receiving SSI benefits indicated they were disabled when asked about their employment status.

Overall, single-parent clients and non-clients did not report large differences in their use of government programs. Some differences were noticed in use of government programs between single parents and others, especially with respect to food stamps and school feeding programs. The large percentage of respondents not receiving

food stamps despite obvious need should raise concerns about the availability (or perceived availability) of food stamps in the study area.

Food Pantry Clients

The experiences and attitudes of food-pantry clients are summarized in Tables 8 and 9. Most food pantry clients had been receiving food at the food pantry for at least several months, indicating that the pantry was serving a long-term need, rather than providing a response to a single acute emergency. About the same percentage of single parents (46 percent) as the clients in the rest of the sample (43 percent) had received food for more than a year. More than half of all clients expect that they will still need the pantries' services in three months, and only 23 percent of single parents and 27 percent of the clients in the rest of the sample said they did not expect to need the pantry then. (The remaining group said they hoped not.) The majority of respondents in both categories received food only "every now and then" as opposed to getting pantry food on a weekly or monthly basis.

Overall, respondents reported a fairly high level of satisfaction with the food received at the pantries, and no large differences were noticed in the satisfaction levels of single-parent clients and the clients in the rest of the sample (Table 8). Over 80 percent of all clients were satisfied or very satisfied with the quality of food. When asked about the amount of food, 80 percent of respondents in both categories were very satisfied or satisfied. Similarly, about the same high percentage of all food pantry clients indicated they were satisfied or very satisfied with the variety of food.

Clients were also asked why they needed the services of the food pantry. High medical costs, personal problems, other costs or bills, and utility bills were common responses from all clients.

Table 9 shows attitudes and experiences concerning accessing food pantry services. Almost all respondents indicated they were treated with respect "all of the time" by food pantry staff. The majority of respondents indicated the director was very helpful when they needed food.

The majority of both groups indicated that it is never hard to find transportation to the site, but a slightly higher percentage of single parents, 10 percent, reported always having problems accessing the food pantry, compared to 4 percent of clients in the rest of the sample

Table 9. Food Pantry Client Access to Services.

Item	Single Parent	Other	X-square
	pct	pct	
When you come to the pantry are you treated with respect?			
Some/Most of the time	8	4	1.6
All of the time	93	96	
How helpful was the director of the pantry?			
Not helpful	3	0	1.8
Somewhat helpful	10	14	
Very helpful	88	86	
Do you or anyone else in your household own a car?			
Yes	73	71	0
No	28	29	
Is it hard for you to find transportation to the pantry?			
Never	62	75	4.2
Sometimes	26	20	
Always	10	2	
Other	3	4	
How far do you live from this food pantry?			
Less than five miles	36	40	1.7
5-10 miles	31	27	
11-15 miles	10	11	
16-20 miles	10	6	
21-30 miles	8	9	
More than 30 miles	2	7	
Number	(40)	(56)	

* $p < 0.05$

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

Table 10. Non-Client Obstacles to Food Pantry Use.

Item	Single Parent	Other	X-square
	pct	pct	
Do you know about the East Alabama Food Bank?			
Yes	37	33	0.7
No	63	67	
Do you know about food pantries in your community?			
Yes	43	38	0.3
No	57	62	
What are your reasons for not receiving food from a food pantry			
Didn't know I could receive food	23	23	NC
Do not know how to get in touch	20	15	
Do not qualify	8	15	
Don't want to fill out the form	0	0	
Language barriers	0	0	
Hours are inconvenient	0	2	
Don't have transportation	2	3	
Do not want to apply	3	2	
Not worth the trouble	5	7	
Embarrassed	0	0	
Other	50	55	
How far do you live from the nearest pantry?			
Less than five miles	58	47	3.1
5-10 miles	28	36	
11-15 miles	8	3	
16-20 miles	3	6	
More than 30 miles	3	8	
If you were eligible, would you receive food from a food pantry			
Yes	90	92	0.1
No	10	9	
Number	(60)	(60)	

* $p < 0.05$

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

(Table 9). Most of the pantry directors indicated they would deliver food if a client could not access the pantry.

Possible Barriers to Use Among Non-Clients

Results of survey items administered only to non-clients are reported in Table 10. Most of the respondents did not know about the East Alabama Food Bank or food pantries in their community. Of the single parents, 63 percent said they did not know about EAFB, compared to 67 percent of non-clients in the rest of the sample. Likewise, 57 percent of single parents did not know about food closets or pantries in their community, and 62 percent of non-clients in the rest of the sample were unaware of these services. Differences were not statistically significant at the 5 percent level.

When asked to list reasons for not using a food pantry, the main reason indicated by the non-clients was lack of knowledge of the programs. Transportation did not appear to be a major obstacle for non-clients. Only 2 percent of single parents and 3 percent of non-clients in the rest of the sample listed transportation as a reason they did not use the pantry. None of the respondents indicated that they would be embarrassed to use a pantry.

Ninety percent of single parents and 93 percent of the non-clients in the rest of the sample reported they would receive food from a pantry if they were eligible. Thus, the most important barrier to food pantry use in the study area appears to be lack of knowledge of the availability of this service.

Logit Model: Use versus Non-Use of Food Pantry

Because many of the factors that could determine pantry use might be interrelated, we developed a logit model to test for differences among clients and non-clients. In particular, we were interested in seeing if either food stamp use or family structure (e.g. single parenthood) was a factor that might distinguish the two populations, if other factors were held constant. The dependent variable, use of a food pantry, was modeled as a 0-1 binary variable, with pantry use as "1" and non-use as "0." Although selection of the pantry clients to be interviewed was random at any particular site, overall the pantry-use variable was not random among the total population of low-income people, because a

Table 11. Logit Model Results, Determinants of Food Pantry Use

Variable	Coefficient	Standard Error	P value	Marginal Effect
Constant	-0.985	0.215	0.647	-0.69
Married, children	0.292	0.106	.006*	0.05
Married, no children	-0.078	0.129	0.545	-0.02
Single, children	0.038	0.031	0.656	0.12
Food security	0.029	0.057	0.612	0.03
Skip meals	0.525	0.261	.044*	0.13
Food stamps	-0.118	0.338	0.728	-0.09
More than high school	-0.143	0.449	0.75	-0.06
High school	-0.229	0.383	0.551	-0.08
Race, white	0.561	0.381	0.141	0.06
Age	-0.003	0.011	0.89	0
Income	0	0	0.297	0
Church attendance	0.296	0.131	.023*	0.073

*P<.05

Source: Primary data from a 1999 Survey of East Alabama food pantry clients and food needy non-clients conducted by the authors of this paper.

specific number of pantry clients were targeted for interview. Hence, the logit model results should not be interpreted as measuring the probability that a low-income individual uses a food pantry, but rather in showing which characteristics differed significantly in the two populations. Further, the method of selection of the non-client sample (e.g. relying largely on residents of housing projects) would likely lead to an over-representation of single parent families who rely on government social services in that group.

The logit model was of the form:

$$Z = B + B_1 + B_2\text{MARCHILD} + B_3\text{MARNOCHILD} + B_4\text{SINGCHILD} + B_5\text{FOODSEC} + B_6\text{SKIPMEAL} + B_7\text{FOODSTP} + B_8\text{MOREHIGH} + B_9\text{HIGHSCH} + B_{10}\text{RACE} + B_{11}\text{AGE} + B_{12}\text{INCOME} + B_{13}\text{CHURCH} + V$$

where Z is the predicted "odds" of using a food pantry, and the independent variables represent characteristics that might distinguish clients from non-clients, defined below.

Family structure was modeled with four categories. The four categories were: married with children (MARCHILD), married with no children (MARNOCHILD), single with children (SINGCHILD), and single without children. Each category was modeled as a binary variable, with "single without children" used as the omitted category. Thus, the variable MARCHILD in equation 1 takes the value "1" if the individual is married with children, "0" otherwise. The variable MARNOCHILD takes the value "1" if the individual is married without children, and the variable SINGCHILD takes the value "1" if the individual is single with children, and "0" otherwise.

Two independent variables, FOODSEC and SKIPMEAL, were used to measure food insecurity. The first food security variable (FOODSEC) measured whether a respondent never, sometimes, or often ran out of money for food. This variable was coded as 1 if the client never ran out of food, 2 if the client sometimes ran out of food, and 3 if the individual often ran out of food. The second food security variable (SKIPMEAL) indicated a higher level of food insecurity, since it measured the number of times (never, sometimes, or often) a respondent actually skipped meals because of lack of money for food. The variable was also coded as 1,2,3, for never, sometimes and often, respectively.

The variable FOODSTP was included to determine the effect that receiving food stamps has on the probability of using a food pantry. The variable took the value "1" if the individual received food stamps, and 0 otherwise.

Education level was included in the model by using a number of binary variables. The alternatives were having more than a high school education (MOREHIGHSCH), completing high school (HIGHSCH), or having less than a high school education. The variable MOREHIGHSCH takes the value "1" if the individual had more than a high school education, and "0" otherwise. The variable HIGHSCH takes the value "1" if the individual completed high school, and "0" otherwise. Having less than a high school education was included as the omitted category. Race (RACE) was also included with the variable taking the value "1" if the individual was white, and "0" otherwise. Age (AGE) was included in the model as a continuous variable. Income (INCOME) was coded as the mean of the income category the individual or household was in. If the household earned less than \$5,000 per year, the variable was coded as \$2,500. The variable was coded as \$7,500 if the household earned from \$5,000 to \$9,999 per year; \$12,500 if the household earned from \$10,000 to \$14,999 per year; \$17,500 if the individual earned from \$15,000 to \$19,999; \$22,500 if the household earned from \$20,000 to \$24,999; \$27,500 if the individual earned from \$25,000 to \$29,999; and \$32,500 if the household earned from \$30,000 to \$34,999.

The final independent variable was church attendance (CHURCH). Many pantries are located in or associated with a church or religious group; hence, being part of a church may increase awareness of the food pantry and thus the probability of using a pantry. The church attendance variable measured whether the respondent attended church more than once a week, about once a week, two or three times a month, two or three times a year, or not at all. The variable was coded as 1 if the respondent attended church "not at all", 2 if the individual attended church two or three times a year, 3 if the individual attended church about two or three times a month, 4 for attending church about once a week, and 5 if the individual attended church more than once a week.

Results from the logit model are found in Table 11. The significant positive variables included being married with children (MARCHILD), skipping meals (SKIPMEAL), and church attendance (CHURCH). Food stamp use, however, was not a significant factor in the model. Since being married with children was a significant factor, in our sample, food pantry clients are more highly represented by two-parent families with children than are the non-clients. Thirty-three

percent of food pantry clients were married and had children under 17 living with them, compared to only 11 percent of the non-clients. The large number of married couples with children using the pantry is an important finding about the population served by food banks. Results are consistent with recent studies reporting an increase in the number of families with children using emergency food services. A Tufts University paper (Tufts 2000) summarizes several regional studies conducted in Maryland, Massachusetts, New York City, and Philadelphia, showing that since 1996 food pantries have experienced an increase in the number of families with children using their services. Single parents actually represent a larger percentage of clients (42 percent) than married couples with children (33 percent), but the non-client sample also had a high percentage of single parents (50 percent), resulting in a greater significance of the married with children variable. Again, the method of selection of the non-clients could account for the significance of this variable for our sample.

The skipping meals variable indicates a level of food insecurity where the respondent is forced to skip meals because of lack of money for food. The variable was positive and significant at the .05 level, showing that food pantry clients are characterized by more frequently skipping meals because of lack of money for food than the non-clients. The finding is consistent with a recent study that defined the use of food banks as a barometer for gauging hunger and food insecurity in our country (Tufts 2000).

Church attendance was also significant. Ten of the twelve food pantries in our study were connected with a church or religious organization. None of the 10 church sites restricted their services to church members alone, but the greatest barrier to use of food pantries was lack of knowledge of the programs. Therefore, those who attend a church regularly are more likely to know about the services and thus use the pantry.

The three significant variables, being married with children, skipping meals, and church attendance were also significant in models with alternative specifications, showing that they indeed have an association with food pantry use in this sample. Food stamp use, on the other hand, did not distinguish the populations of clients and non-clients. The selection method in our sample might have been expected to bias upward the percentage of food stamp users in the non-client sample, but even with this possible source of bias, food stamp use was

not significantly different between the two groups. Hence, it does not appear likely that, in the aggregate, the food-insecure population views pantries and food stamps as substitutes.

Conclusions

The purpose of comparing the single-parent respondents with the rest of the sample was to examine the differences in characteristics and needs of the two groups in terms of their demographic characteristics, food security levels, use of government programs, and experiences with food pantries. The data show that single parents have somewhat higher food insecurity levels, have a higher percentage of respondents in the lower income levels, and are more likely to receive food stamps or TANF benefits.

The East Alabama Food Bank appears to be a source of assistance to the clients, and the directors of the pantries work hard to meet the needs of their clients. Clients appeared both satisfied with the services and grateful for the assistance. It is likely that food pantries provide support other than groceries for the mostly female clients. In the majority of cases, the pantries were operated by a church volunteer or the pastor's wife. In interviewing the clients, we saw that many had a personal relationship with the director. At one site, interviewers saw the director hug a lady and tell her she loved her. The comforting smiles and listening ear of a food pantry director may be especially helpful for emotionally-stressed single parents. Although food pantries cannot provide the same variety and amount of food received from food stamps, the personal, informal nature of the program may be more appealing to some clients than the bureaucratic structure of the Food Stamp Program.

Despite the high level of need indicated by the single-parent respondents, food pantry clients are characterized by a fairly high percentage of married couples with children. The finding shows that the hunger needs in this area are not limited to one-income, female-headed, single-parent households. They may also provide an indication that single mothers, who are probably more harassed for time than adults in two-parent families, are less able to coordinate regular contact with a pantry supervisor.

Since adults reducing the size of meals or skipping meals was also significant, food pantry clients appear to be characterized by a

level of food insecurity that requires them to skip or reduce the size of their meals. The finding could indicate that the rise of food banking nationwide is a sign of increasing food insecurity, especially in the wake of welfare reform and the sudden drop in food stamp use. The finding also highlights the need for more research on food banking. If more people are turning to food pantries when they run out of money for food, research is needed to discover how well the private sector can meet the needs of clients and to learn how food pantries can reach those who are unaware of the programs.

The high percentage of all respondents reporting that they are disabled indicates that food insecurity in the study area is likely to be a chronic problem for many. In addition, many of the food pantry clients report long-term (more than six months) use. More than half of our total sample, however, reported that they do not receive food stamps. Of those who do receive them, the large majority reported that the stamps did not last all month, and many have either had their benefits reduced or expected them to be reduced. Although the food stamp program should fill the "hunger gap," our study results indicate that, for many food-needy families, food stamps are either unavailable or perceived to be so. The "resource test," under which food stamps are denied to families having more than \$2,000 in all non-home "countable" assets may be a significant obstacle keeping some impoverished families from the program. The fair market value of a vehicle in excess of \$4,650 may be counted toward the asset test, except in some circumstances, such as when a vehicle is needed to carry disabled family members, or when the vehicle itself is used for income-producing purposes, or when there is a large lien against the vehicle. A ten-year-old Honda may have a market value above this limit (Yahoo Autos 2001). Given the importance of reliable personal transportation in non-urbanized areas of the United States, the asset test may hit rural residents especially hard.

Few of our respondents reported receiving cash welfare payments, but among the handful that do, we found concern about benefit reductions in the future. At the time of this survey, economic conditions in the study area were unusually good and the time limits for cash welfare benefits had not yet been reached. If the current downturn in the economy continues, these needy residents of the study area may find themselves highly stressed to feed their families.

Food pantries were designed to fill short-term emergency needs,

and cannot realistically be expected to fill the long-term or severe food needs of an impoverished population. Further, our results show that many food-needy individuals in our local area do not use food pantries because they are unaware of the availability of the services. The pantries, run by volunteers, often on very limited budgets, usually cannot afford an extensive outreach or advertising campaign, so it is not likely that this information problem will be addressed soon. Most pantries, also, are already strained to serve the needs of their existing clients, and it is not clear how these pantries could respond to a large increase in demand. Given the negative consequences of hunger and malnutrition, our study highlights the importance of increased efforts to make food stamps and other forms of long-term government food assistance more accessible to the needy population.

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