

When Even the 'Dollar Value Meal' Costs Too Much: Food Insecurity and Long Term
Dependence on Food Pantry Assistance

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Understanding the characteristics of people needing services is key to designing effective anti-poverty programs. Using time-series data from client files at participating non-profit food pantries, we created profiles of over 500 individuals accessing private, non-profit food assistance from 2005-2008, representing almost 3,966 separate visits. One of the central factors we are considering is whether or not the recipients are already participating in food stamps, the primary government food assistance program. We also focus on the role of employment and household situation, as well as a variety of household and demographic factors. We find the typical client is African American. There is not a typical family size – clients are about as likely to come from a large family as a small one. Pantry clients report a median income that is 23 percent less than the median county income and 29 percent less than the state median. A client typically visited a pantry 4 times, although a large share visited much more often.

Introduction

Each year, poverty affects millions of Americans in many different and sometimes unseen ways. We agree with Jensen (2002) that hunger is one of the clearest indicators of poverty, but it can be invisible day to day. Like other manifestations of poverty, society deals with hunger through both government and charity-based programs. And, again, like other anti-poverty programs, these food assistance programs have been based on the idea that people would ‘fall’ onto hard times, and could “lift themselves” out of it. Food assistance programs were designed to be short-term solutions for crisis situations (Daponte and Bade, 2006).

In reality, however, two-thirds of people receiving assistance from food pantries get help on a regular basis, and the use of private food assistance has risen dramatically since 1980, even before the most recent economic recession (Berner and O’Brien, 2004; Berner, Paynter and Ozer, 2008). Who are the people who receive long term food assistance? Why don’t federal programs such as food stamps fill this need? What moves a person from short-term need to long-term dependence? We gathered time-series data from practitioner partners in North Carolina to answer these questions, examining poverty through hunger, with the belief that a better understanding of food assistance need will lead to better policy options and outcomes. This paper describes our research project and presents preliminary statistics on the data gathered to date.

Background and Literature Review

Though the great majority of undernourished people live in the world’s poorest countries, there are a sizeable number of individuals inside the United States who are unable to have stable, assured and adequate access to food (Jensen, 2002). USDA food assistance programs usually

serve as an economic safety net for these individuals, buffering the effects of poverty. Yet, there is growing evidence suggesting food stamp recipients are not finding government assistance sufficient to meet the needs of their households, and as a result, are turning to emergency food providers in the private, non-profit sector for help (Eisinger 1999; Daponte 2000).

We can first consider research on general trends. Aggregate food bank and food stamps program usage patterns are well documented. In one study, Berner and O'Brien (2004) found a statistically significant relationship between welfare reform and increased demand on food banks. One measure of welfare reform's success had been the decline in food stamp recipients in the late 1990s. However, it was not known whether hungry individuals were simply turning to, or relying more heavily on, other sources. The Berner and O'Brien study examined the combined monthly food outflow patterns of 193 emergency food providers (EFPs) in central North Carolina from 1995-2000 along-side food stamp participation figures. The authors showed that while the number of food stamp recipients declined, the amount of food going out through EFPs rose. Results indicated that since welfare reform, these EFPs withdrew around 50 more tons of food for their clients than they otherwise would have over the time period. These aggregate results raised the question of whether one result of welfare reform was a temporary shift of direct service provision from government to non-profits. Since 2000, food stamp participation has risen again, but EFP usage also has continued to rise dramatically and is at record levels. According to Feeding America (formerly America's Second Harvest), 25 million Americans turned to charities for food assistance in 2004 (America's Second Harvest 2006). Demand for food assistance is rising across the board.

But these charities are struggling to meet the demand. As recently as early 2009, food pantries and banks reported running out of food (see for example, "Newly Poor Swell Lines at Food

Banks” New York Times, February 19, 2009). And food insecurity in our society is not without cost. Numerous studies (e.g., Hamelin, Habrict, and Beaudry, 1999; Jensen, 2002; Olson, 1999) suggest poorer academic performance and health outcomes are related to food insecurity. A more recent study in Illinois even showed a relationship between being the mother of a low birth weight baby and the stress associated with trying to pay for household food needs by (Hollander, 2007).

Researchers are realizing there may be a greater dependence on non-profit food assistance programs than previously thought. Some suggest, such as Jensen (2002), that welfare reform programs created in the mid-1990s (e.g. PRWORA 1996) can be blamed for created an increased reliance on the major entitlement program for low income households. She argues that states, through welfare reform, required recipients to access job training or employment opportunities to gain access to public assistance. Though noble in design, the practical result is that an increased number of individuals enrolled in technical programs became employed in service industry jobs, and still remained unable to afford basic necessities like housing, medical care, and food simultaneously. As a result, despite more people choosing the option of enrolling in food stamps programs, more often than not people experienced hunger and those who are eligible for food stamps may never apply for the benefit (Jensen, 2002).

There seems to be a consensus now that for many people, choosing between government and non-profit food assistance is not an option. Both are needed. Daponte and Bade state, “...36% of households dependent on a food pantry receives food stamps and one third of pantry households have never even applied for FS. (This) suggests a fundamental shift in the needy’s perception of the food safety net (Daponte and Bade 2006, 668-9).” To put this in a more tangible context, a 2004 study by Mosley and Tiehen of three counties near Kansas City found that over three years,

more than 13 percent of area households visited a pantry and some of the same people accessing food stamps also access food pantries. They conclude, “The data suggest that households are not substituting one form of assistance for the other but rather are accessing multiple types of assistance when necessary (Mosley and Tiehen 2004, 267).”

Using data from the 1999 Current Population Survey to get a national sample, Bhattarai, Duffy and Raymond also found that families do not use food pantries and food stamps as substitutes for each other. To the contrary, their bivariate probit model showed “Participating in one food assistance program increases the likelihood of participating in the other” (Bhattarai, Duffy, and Raymond 2005, 295). This there may have been a temporary preference for emergency food providers after welfare reform in the late 1990s, before we returned to needing both government and private non-profit sources of assistance. It also implies that there were other reasons, including changes to entitlement formulas, helping explain why food stamp participation decreased while food pantry usage is increasing.

While it seems clear that people are using both public and private, non-profit food assistance, we know little about these individuals and their needs. For example, unlike studies focused on welfare and other government-sponsored programs, the nature of food assistance “spells” has not yet been analyzed in depth. There are only a few studies which attempt to explain what happens on an individual level when a short term crisis turns into the long term dependence on food assistance. In one example, Daponte and Bade (2006) suggests that although local and regional non-profit food assistance programs (food pantries, food banks, soup kitchens, etc.) were established as a way to address short-term food needs, many individuals are now using them on a long-term basis. Berner, Paynter and Ozer (2008), in another example, found the working poor are at a slightly greater risk for making recurrent visits to the food pantry than

those who do not work. Pantry clients who work are more likely to have sacrificed food to pay for other life necessities, such as utilities or mortgage. Moreover, for those who are not employed, government benefits do not seem to provide an adequate food safety net. As a result, non-profits are increasingly pressured to fill the gap.

Understanding the characteristics of people needing these services is critical to designing effective anti-poverty programs. Following previous literature focused on the welfare spells mentioned above (Bane and Ellwood, 1986; Stevens, 1994; Stevens, 1999; Sandefur and Cook, 1998; Blank and Ruggles, 1997), this analysis considers what factors influence how long an individual receives food assistance from local non-profits. We attempt to create profiles of the individuals accessing private, non-profit food assistance. One of the central factors we are considering is whether or not the recipients are already participating in food stamps, the primary government food assistance program. We also focus on the role of employment and household situation, as well as a variety of household and demographic factors.

Research Questions

Our central research questions are:

1. Who is seeking food assistance outside of the government social safety net, when and why?
2. What factors influence how long an individual receives food assistance from local non-profits?

Data

One explanation for the lack of research on this topic is the difficulty of collecting valid and reliable data. While many food providers maintain data on the number of clients served, their methods for tracking clients differ widely. Soup kitchens may track the number of individuals coming through the door, the number of families served, or the number of meals served in a year. Each provider may or may not ask for client names and keep records of how frequently an individual returns for assistance. Because of the lack of detail and consistency, in part due to the limited research capacity of these small non-profits, there are few data to study.

Our experience in working directly with two large food banks has shown there is an exception to this data problem: established, local non-profit food pantries (those in existence long and consistently enough to be regular members of a regional food bank) tend to have each client complete an intake form for each visit. They also tend to maintain long-term records for each client, usually on paper. These records serve as the raw data for the profiles in our project.

Our research plan has been tested in other work across issue areas. Profiles have been created in other studies, such as an analysis of single mothers and emergency food assistance in Wisconsin conducted by Bartfield in 2002 and low-income families in Iowa studied by Jensen, Keng, and Garasky in 2000. Among the variables included in these analyses are employment status and receipt of governmental aid including welfare, social security and food stamps (Bartfield 2002; Jensen, Keng, and Garasky 2000). These studies provide the foundation on which our model is built.

Additionally, an extensive profile of these individuals has been provided recently on the national level. The Hunger in America 2006 report presented the findings of a national study conducted for Feeding America, the largest network of emergency food providers in the country. The

Feeding America network covers all 50 states, the District of Columbia, and Puerto Rico. The 2006 study involved interviews of 52,878 agency clients and surveys of 31,342 Feeding America agencies, both administered in 2005. Agencies included food pantries, soup kitchens and emergency shelters serving short-term residents. While the vast scope of this study is impressive, it is cross-sectional research, focused on one point in time. No one has completed a longitudinal analysis of non-profit food assistance usage.

Research Methods

Our geographic focus in this paper is North Carolina. In 2005, the USDA reported North Carolina ranks higher than the national average for rates of both food insecurity (13.8 percent) and prevalence of hunger (4.9 percent) among the state population. Moreover, the rates increased significantly from previous reports. Within North Carolina, our focus is on non-profit food pantries that work with The Food Bank of Central and Eastern North Carolina (The Food Bank).

Food Banks act as distributors of bulk food donations to their individual member agencies, which can include shelters, day cares, assisted living facilities, soup kitchens, nursing homes, senior centers and other facilities in addition to traditional pantries. We limited our sampling frame to only traditional food pantries (as defined by the Food Bank – excluding agencies such as soup kitchens or after-school feeding programs) who have been members of the Food Bank for at least one year.

The Food Bank's service area includes 34 counties and 870 member agencies. Of these, 480 are member pantries. From these, we identified 40 eligible pantries in the central and eastern parts of the state, those willing to participate that have, at a minimum, consistent hard copy client files. This is the first project we have undertaken with this non-profit partner, and consider it a pilot of

a larger and longer effort. Rather than rely on a sample, we worked with the Food Bank to identify those pantries most likely to be willing and able to participate, with the hope that if our effort to gather and analyze data were successful here, we could expand in a random way across food banks in multiple states. (Rhode Island and Iowa are likely expansion states). Therefore, this is not a random sample of pantries. To date, we have visited 15 pantries and are continuing data-gathering visits. Because some pantry records were unusable or variables captured are unique to single organizations, results presented in this paper come from only 11 of the 15 pantries we have visited.

At each pantry, we obtained access to all client files. Using the filing system at each pantry and a random number generator, we randomly selected files. Our goal at each pantry was to gather at least 30 files. Often we continued beyond 30 in order to complete our random selection of the entire client file system. Our selection was also governed by time and availability of pantry staff. All data gathering took place on-site. Most records were paper-based, and for confidentiality reasons, files did not leave the site. The data for each individual are recorded from when he or she first visited the pantry to the present. Each client is assigned a record number in a secure, electronic coding database. Then, in a separate, secure, electronic database, we are recording:

- a. The client code number
- b. All dates the selected client has visited the pantry
- c. Demographics of the selected client
- d. Address of the selected client at time of each visit
- e. Employment status of client
- f. Participation in other government assistance programs (Food Stamps, TANF, Social Security)
- g. Reason for pantry visit

Unfortunately, food pantries are not generally in the business of data collection so that not all pantries collect the same information. Our analyses, therefore, have different numbers of total observations, and use different variables, depending on the question involved.

For example, while some organizations in our study (N= 3) asked clients for age or date of birth, employment status, and participation in entitlement programs, most simply recorded the date of a visit, client name, address, and type of service provided. However, the simple act of gathering client addresses gives us enough information to track a client over the lifecycle of a pantry's records and to marry that information to census block data, a level more specific than previously studied. Using 2000 census block data from Short Form 3 we have constructed a demographic profile of client groups accessing food pantry services.

We have captured data as old as 1991 but because there are not enough annual client visits in all years to meet the assumptions for normally distributed data, our final data set for this paper includes only the 3,966 visits recorded between January 2005 and October 2008 (skew and kurtosis statistics for each variable fall between -2 and +2).

We first present the characteristics of clients accessing the pantries. We then briefly move to cross tabulations to explore relationships between working, receiving government benefits, and short-or long-term status at the pantries. Then, to better analyze how each of a number of variables affects pantry status, we present limited, exploratory regression analysis. We use linear multivariate regression to test the impact of food stamp status and number of individuals in the household on length of food pantry usage measured in years.

Poverty research (for example, see Daponte, Sanders, and Taylor, 1999) generally includes variables like age, race, household size, and household income. The independent variables in our

models will include client status, employment, and receipt of Social Security, food stamps, and welfare benefits. Dummy variables were used as necessary for the analysis. Because item non-response may be an issue with several variables, a third group, the non-response clients, was created. Binomial variables are coded so that the reference category is always the absence of a trait, characteristic, or condition.

To isolate the impacts of specific benefits programs, for example food stamps versus welfare, these variables were treated separately. For the purpose of this project, questions about employment imply that the respondent was actively employed at the time of pantry visit. We do not know if employment is full-time or part-time. As a result employment is included in the model as a binomial variable. All variables were tested for multicollinearity; none was found.

Limitations

The limitations of this project lie in the unique nature of working with data originally collected for organizational purposes rather than research purposes. While we feel this will result in an accurate portrait of the clients of the member pantries of the food banks in these two regions, we cannot confidently say it represents a typical American pantry or that the findings would apply to other pantries nationwide. However, similarities between our pilot results and those of the recent national survey suggest it is not unlikely. In addition, by selecting pantries from different parts of the 36-county Food Bank service area, we hope our results will be more generalizable than if they were from a single city or county.

A limitation of our study data is that all food pantry clients self-select participation. We cannot survey a sample of potential but non-participant clients because we have no way to identify these individuals. A potential future solution for this issue might be to create a sample of food pantry

clients with only one recorded pantry visit. From this list we might survey the individuals to seek information about why they did not ask for further pantry assistance. However, this does not solve the problem of recording information about those who simply do not seek food pantry assistance. Another data limitation is related to time – our information reflects data reported from 2005 to 2008. For certain variables, primarily demographic ones, we match these addresses to census block information from 2000. There may have been changes in the census block demographics in the intervening years. However, we feel wide-scale changes in demographics in neighborhoods across ten counties in less than five years is unlikely.

There are also some methodological limitations. Using any set period of time requires a truncated sample. In our full data set, we avoid truncating the sample on the front end (the start date) by going back in time to when each individual started service, although it is still truncated on the far end (the end date – the present). However, in this introductory analysis, we cannot avoid truncating the sample at both ends. Some of the first and last, apparently short-term, clients included in our paper have been or eventually will become long-term outside of our time period. However, since we estimate that only about 10% of those would make that status change (based on previous research—Berner, Paynter and Ozer, 2008), we assume this is not enough to significantly affect our results. Further analysis with a longer time period should minimize this problem.

An additional limitation is that the records of one pantry may not capture visits of those same clients to other pantries. Thus, we may not fully capture a client's complete non-profit food assistance history. For this study, we must assume that individuals visit the same pantry because of its location or convenience. We make this assumption because of the restrictions of our data, its unique characteristics, and the availability of client records (and different formats) from

agency to agency. This is the only realistic assumption we can make with the data at this time; but the reality is that clients may be moving around from pantry to pantry.

While most small towns have multiple pantries, the pantries are not “competing” in the sense that they are trying to capture clients from one another. Anecdotal evidence from pantry directors suggests clients are not visiting multiple pantries, and while our data will eventually allow us to check this assumption because we will be able to cross-reference clients, this is still a limitation because we cannot verify this at this time. In a related limitation, if a client moves out of a pantry’s service area, and the pantry has no record of that move, we will not be able to separate when a client stops needing service versus when they move out of the area.

Our models do not control for clustering at the state or point level. We will work with appropriate multi-level models in future analyses (hierarchical linear models) to control for clustering at the block level. In addition, eventually, event history analysis also will be used to examine how these same independent variables influence the total length of time of a client food assistance spell.

Sample Characteristics

Even though the older visits are not included in the multivariate analysis, simple client trends from one older pantry are remarkable. Pantry 4 had client records dating back to 1991 where there was an average of 12 clients from 1991 to 1996. In 1997 the number jumped to 36 and continued to rise by about 25 percent each year until 2005 when more than 160 clients visited the pantry. Other pantries did not experience such a wide variation in client visits, but most reported

markedly higher numbers between 2005 through 2008, our time period for analysis. As shown in Table 1, pantries are generally experiencing higher utilization rates in more recent years.

Table 1. Food Pantry Client Visits 2005 to 2008

Pantry	2005	2006	2007	2008	Total
1	130	151	97	76	454
2	5	8	23	83	119
3	32	50	38	32	152
4	165	166	162	143	636
5	35	6	25	30	96
6	191	253	263	167	874
7	6	25	59	70	160
8	17	16	10	20	63
9	44	56	56	55	205
10	89	98	153	42	382
11	201	215	200	205	825
Total	915	1044	1080	927	3,966

Client record samples from Pantries 2, 5, and 7 during 2005 and 2006 included many less visits than other pantries. However, these pantries saw incredible growth in client use in 2007 and 2008 and contribute important information to our study. Therefore, though the unequal population of cells in these years creates modeling issues, these data are preserved for the remainder of our analysis. To that end, 364 different clients, (not different client visits) are represented here. These people live in 10 counties across central and eastern North Carolina. By and large, the people visiting pantries have less income than residents of the counties where our pantries are located, North Carolina, and other Americans. As shown in Table 2, pantry clients

report a median income that is 23 percent less than the median county income and 29 percent less than the state median.

Table 2. Median Household Income Per Year (2000 Census)

	Pantry Clients	Pantry Counties	North Carolina	United States
Median Income	\$ 31,208	\$ 40,714	\$ 43,867	\$ 50,007

Source: U.S. Census, 2000.

According to address information provided by pantry clients and census block data, our sample has different racial characteristics than the population of the counties where pantries are found and from the overall population of the state. These results are presented in Table 3. Our sample contains many more African-American clients than either the counties or the state as a whole. This is somewhat unexpected since the counties in the sample are more heavily populated by African-Americans than the state as a whole but in previous studies (Berner, Paynter, Ozer, 2008) there was no difference in the race of food pantry clients. We believe Hispanic clients are underrepresented in our analysis since both our sample and data from the counties have fewer Hispanic residents than the total proportion of Hispanics in North Carolina.

Table 3. Percent Total Population Race

	African-American	Caucasian	Hispanic	Other
Clients	59	34	5	2
Counties only	29	63	4	4
North Carolina	21	71	7	1

Source: Authors' calculations; U.S. Census 2000.

Results

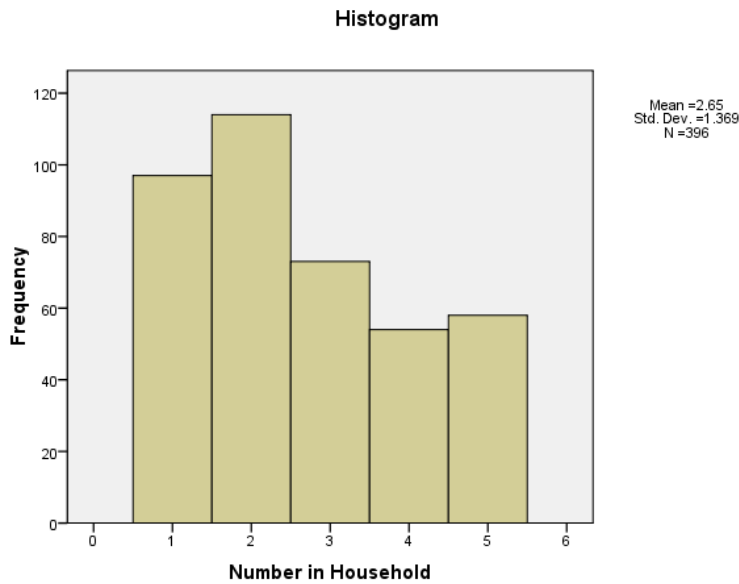
Research Question 1: Who is seeking food assistance outside of the government social safety net, when and why?

All data reported here represent four consecutive years, 2005-2008. The data set represents 415 individual clients, who combined visited the pantries a total of 3966 times over the years covered in this data set. Of course, some clients came only once; some clients came over 100 times. The range of visits is from 1 to 205, the mean is 12, and the median is 4 visits. The characteristics of pantry clients include:

- Many people are ‘long-termers’ or supplemental clients. (Supplemental clients are those individuals who need non-profit food assistance to supplement their regular food sources, whether it is a job or government assistance.)
 - While 25 percent of the clients only visited the pantry once, approximately 30 percent visited over 10 times.
 - Ten percent of the clients visited a pantry over 29 times.
- Most clients had a relationship with a pantry for over a year.
 - Slightly less than one half of all clients (47%) had a relationship with a pantry in the course of only one year.
 - Twenty-two percent had a relationship with a pantry over the course of two years.
 - Fifteen percent had a relationship with a pantry for three years,
 - Fifteen percent had a relationship over the course of four years.

- Clients represent families of all sizes. The idea that clients are either all single or large families is mistaken. They come from both and in-between, mirroring 2000 Census figures.
 - According to data provided by clients visiting pantries in our sample, 25 percent of clients come from single person households.
 - Twenty nine percent are from two-person households (which may include a child).
 - Eighteen percent are from three person households and
 - Twenty-eight percent are from households with 4 or more people.
- Eleven percent of the clients changed addresses at least once while going to a single pantry.

Figure 1. Pantry Client Number in Household



Source: Authors' calculations.

When use client's addresses to track information in their census block, we find the following characteristics:

- Slightly more females (53 percent) than males live in these homes.
- Households are married couples without children 24 percent of the time.
- Only 14 percent are single heads of household without children
- Thirteen percent are elderly single heads of house.
- Single parents are female most often (about 6 percent; less than 1 percent of males report having children in the home and being single heads of house).
- The remaining households (42 percent) are married couples with children. However, the size of pantry client households is comparable to numbers reported by all residents of counties, North Carolina, and the U.S. Estimates of census block groups

show that 2.27 people live in households accessing pantry assistance. Actual pantry clients reported an average of 2.64 people per home. This number is slightly higher than the U.S. (2.60), state (2.48), and county (2.45) averages. The data suggests there is no significant difference in the number of people living in homes where food pantry assistance is requested and those who do not.

- Many, but not the majority of clients, receive food stamps. For example, in Table 4, when looking at food stamp status at the time of the first visit in the first year of the client's history during these years, food stamps receipt was recorded for less than 20 percent of clients. Our analysis shows that there is no significant difference in food pantry clients that receive food stamps and those who do not (chi square=47.23, $p>0.05$). This supports the notion that food stamps are not an adequate social safety net for avoiding hunger.

Table 4. Food Stamp Status

	Frequency	Percent	Cumulative Percent
Does not receive food stamps	189	45.5	45.5
Receives food stamps	75	18.1	63.6
Pantry did not collect data	22	5.3	68.9
Missing or unreported	129	31.1	100.0

Source: Authors' calculations.

Research Question 2: What factors influence how long an individual receives food assistance from local non-profits?

We began studying this question with some exploratory cross-tabulations. First, we examined the question of whether Food Stamp status (yes or no) seemed related to number of years a client had a relationship with a pantry. Our cross-tabulation was limited to clients who had been to a pantry one to four years, and to pantries where food stamp status was recorded. In addition, cases missing data were excluded, with a resulting N of 264. As seen in Table 5, there is not a clear pattern in our results (chi-square=3.708; p value=.256). Those receiving food stamps on their initial visit tended to represent a large share of clients who came to a pantry only during one and three years. The opposite occurred for clients who came for two or four years.

Table 5: Cross-Tabulation of Food Stamp Status and Length of Relationship with a Pantry

			Food Stamp Status		
			Does not receive food stamps	Receives food stamps	Total
total number of years a client had relationship with pantry	1	Count	81	38	119
		% within Food Stamp Status	42.9%	50.7%	45.1%
	2	Count	48	16	64
		% within Food Stamp Status	25.4%	21.3%	24.2%
	3	Count	34	16	50
		% within Food Stamp Status	18.0%	21.3%	18.9%
	4	Count	26	5	31
		% within Food Stamp Status	13.8%	6.7%	11.7%
	Total	Count	189	75	264
		% within Food Stamp Status	100.0%	100.0%	100.0%

We also asked if changing addresses were related to length of client-pantry relationship. As seen in Table 6, in this case, there does seem to be a pattern, but not in the direction we might have expected. One might hypothesize that those who changed addresses were less stable, and therefore more likely to have a longer term relationship. Instead, those who did not change addresses tended to have longer relationships (Chi square = 10.45, p=.063)

Table 6: Cross-Tabulation of years with a pantry and address change

			Address Change		
			No	Yes	Total
total number of years a client had relationship with pantry	1	Count	163	30	193
		% within Address Change	44.3%	66.7%	46.7%
	2	Count	85	4	89
		% within Address Change	23.1%	8.9%	21.5%
	3	Count	53	7	60
		% within Address Change	14.4%	15.6%	14.5%
	4	Count	58	4	62
		% within Address Change	15.8%	8.9%	15.0%
	5	Count	7	0	7
		% within Address Change	1.9%	.0%	1.7%
	6	Count	2	0	2
		% within Address Change	.5%	.0%	.5%
	Total	Count	368	45	413
		% within Address Change	100.0%	100.0%	100.0%

We then used regression analysis to explore whether or not food stamp status, family size at initial visit, or change in address has an impact on how long a client’s relationship was with the food pantry. We had to use a smaller dataset (N=264) in this analysis since not all pantries recorded this information. Granted, this is an incomplete model. It represents only half of the

dataset, may reflect characteristics of the pantries rather than individuals, and does not include many variables which might influence how long a client comes to a pantry. However it should provide some preliminary indication as to the importance of these three variables.

Table 7: Regression Results

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	1.729	.153		11.298	.000
Number in Household	.115	.049	.144	2.345	.020
Food Stamp Status	-.150	.146	-.064	-1.025	.307
Address Change	-.112	.197	-.035	-.569	.570

- a. Dependent Variable: total number of years a client had relationship with pantry
- b. $F=2.445$; $p=.064$
- c. Adjusted R squared = .02

Of the three independent variables, only number of people in the household at initial visit was statistically significant, and a positive relationship. Food stamp status at initial visit was not. Perhaps more surprising, however, is the very low adjusted R-squared in the model (.02).

Additional Research Findings

Our pantry visits, as well as our years of previous interaction with pantries and food banks, raised a variety of organizational capacity issues. These observations were not the original objective of our research, but are a compelling part of the story of the nature of food insecurity in North Carolina. The 15 pantries we visited:

- do not have any or have only a very limited number of professional staff
- of the staff or volunteers at the pantry, few, if any, have formal management training
- do not have computerized records
- of the staff and volunteers, few, if any, have computer skills needed for data or record management
- do not have updated or well-equipped space
- rely on donated space
- depend on the support of a single individual, often an elderly white woman
- depend on the support of a religious institution

At this early stage, we have two preliminary observations about non-profit food assistance in North Carolina: The situation of the pantry could be described as ‘fragile’. Unfortunately, the situation of the clients seems disappointingly stable.

Plan for Next Steps in Research

Food stamps participants theoretically should be able to avoid food insufficiency because the goal of the food stamp program is designed so that a nutritious diet (based on USDA guidelines) can be purchased through a combination of cash and food stamps. However, this is not always the case. Program participants may fail to ration food through the month resulting in food insufficiency at the end of the month or purchase foods that are both higher in cost and nutritional value (e.g., organics) than outlined as “adequate” by the USDA (Gundersen and Oliveira, 2001). In short, despite the intended safety net of the food stamp program, a number of program participants are unable to avoid food insufficiency.

The work here is not indicative of how likely it is that food stamp recipients (among other characteristics) are more or less likely to need non-profit food assistance. However, we hope to move toward that analysis in our next steps.

Conclusion

From what we have seen, it is our belief most small towns have agencies that lack the capacity to respond to requests for food assistance. From our data, we have been surprised by how long people go to a pantry. It confirms previous assumptions and anecdotal reports that the majority of the food assistance population must use the assistance as a regular supplement to other food supply, whether food stamps recipients or not. And clearly, by self reported income measures, according to government standards, these individuals are not ‘poor.’ So either our assumption that not being able to eat on a regular basis is not a measure of impoverishment (which we find laughable) or the government’s standard of poverty is too low. Further work is underway with this extensive data.

This project does not promote a specific policy or course of action. That is because we firmly believe that any course of action will fail without a clear understanding of the nature and extent of the problem and the education of policy-makers as well as ‘do-ers’ working on hunger issues. This project proposes to go to the source – the food pantries themselves – to create a longitudinal database that will help us understand who needs assistance, for how long, and why. We will use this information to understand where we now in terms of hunger, and how we got here. We hope we can do so in a way that meets the highest methodological standards. Our goal is to help change the policy environment surrounding hunger to foster systematic change.

Our hope is that our results will initiate conversations between service providers and policymakers. Based on our previous research, we believe the most effective hunger programs will result from collaborative solutions born of holistic groups of stakeholders rather than from individual units such as local governments, non-profit organizations, social service providers, or

the State. In short, effective hunger policies will arise when all the stakeholders join at one table.

We hope that this dialogue will give rise to policy options that we can understand, about which

we can educate, and on which we act.

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