Project: Food Pantries and Food Accessibility in Columbus, GA

Community Partner: Feeding the Valley, Columbus, GA

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Food Pantries and Food Accessibility in Columbus, GA

Project Overview

Columbus, Georgia, the state’s third largest city, has a population of 189,885 residents (United States Census Bureau 2010). Of this population, 18.8% are living below the poverty line. This poverty rate is 2.2% higher than the Georgia average (16.5%), and 4.5% higher than the national poverty rate (14.3%) (US Census Bureau 2010). Unemployment rates in April 2013 in Columbus were 7.9%, the rate of unemployment in the state is 8.2%, while the national rate is 7.5% (Bureau of Labor 2013). With nearly 1 in 5 Columbus residents in poverty, the federal government’s The Emergency Food Assistance Program (TEFAP) plays an important role in supporting this vulnerable population.

One of the central institutions in the community that supports access to food is the community’s food bank, Feeding the Valley. Feeding the Valley is a repository of grocery products and non-food items. It distributes items to agencies or special programs that service the public and does not directly distribute items to the public. Feeding the Valley is affiliated with Feeding America, the nation’s largest domestic hunger relief organization. Babbs Douglas, Executive Director of Feeding the Valley asked the Columbus Community Geography Center to explore how accessible food pantries are to the community (city of Columbus and Muscogee County are one political unit). The goal was to better understand a city-wide overview of food accessibility for TEFAP clients. Potential clients of each food pantry need to meet the self-disclosed requirements for TEFAP (see appendix for TEFAP 2013 form that includes eligibility criteria).
Research Question:

In any community there is both a geography of poverty and a geography of food accessibility. Generally, food accessibility refers to both the availability of healthy foods within a community and how easily residents can access those foods. This report project uses the term food accessibility more specifically to indicate access to food pantries serviced by the food bank *Feeding the Valley*. In considering food accessibility we considered the following characteristics:

a. type of organization  
b. geographical distribution  
c. relationship between location of pantries and median income levels  
d. accessibility by days of the week  
e. accessibility by time of day.

Data and Methodology

*Feeding the Valley* gave provided a list of food pantries they serviced and access to food pantry data on days and times of accessibility and addresses. Students collected data on each food pantry supplied by the food bank (full list Appendix 2) and prepared a spreadsheet of the data. There are 48 food pantry sites in Columbus GA serviced by *Feeding the Valley*. Two sites did not provide which day or which time of day they were accessible, while three pantries did not provide time of day for access. We divided the types of pantries in terms of their organizational affiliation, and if they were accessible on a weekly schedule or whether they were only open either bi-weekly or monthly. As there was only one bi-weekly pantry, we included this together with the monthly pantry group.
One component of the analysis included spatial analysis of the locations of the food pantries. The team utilized records from *Feeding the Valley* to identify the addresses of the food pantries. A national street network layer was used to construct a local addressing file. The addresses were then geocoded using the addressing file. When an address is geocoded it receives an X,Y coordinate pair that indicates the approximate location of the address. The weakness of using a national street network layer is that some local streets are not included in the file. Geocoding using a national street network layer enabled the identification of the locations of 45 pantry sites. Three more were added manually by estimating their locations based on outside sources. This location data provided visual clues as to the spatial distribution of the pantries. There was noticeable clustering of the sites. Visual correlation of the pantry locations to block group median household income data from the 2010 Census suggested the clustering was related to city regions that demonstrated incomes below the median.

Maps were made of the location of all food pantries and then pantries that were open weekly, and pantries that were open bi-weekly and monthly. A map was then made of the location of pantries related to the median household incomes in the city. A series of histograms were then created to show the frequency of openings of food pantries in terms of days of the week, and times in the day.
**Results**

*a. Type of Organization*

Out of the 48 pantries mapped, 40 provided days and times of accessibility (2 pantries did not indicate either day or time they were accessible, and 3 pantries that did not mention the time of day they were accessible.) Twenty-eight pantries open on a weekly schedule including two pantries that opened five days a week. There was 1 pantry open bi-weekly and 17 pantries that were open on a monthly schedule. In conclusion, 60% of the pantries were open on a weekly schedule while 40% of the pantries were open on a bi-weekly or monthly schedule.

All food pantries were religiously affiliated. All food pantries were hosted by Christian religious organizations. Note: One synagogue is included in an inter-denominational neighborhood network. Columbus, according to the Association of Religion Data (2010), has 117,867 residents that are religiously affiliated, while 72,018 residents were unaffiliated (37% of the population). In addition, there are almost 500 Jewish adherents and nearly 2300 Muslim adherents in Columbus (Association of Religion Data, 2010).

*b. Geographical Distribution*

In examining the location of all food pantries (Figure 1) we see 48 located in Columbus. The map includes 2 that did not provide day or time of accessibly which are indicated with a blue circle. Over all, the distribution of food pantries is somewhat evenly spread out. However, we can see three trends. First, we can see that the highest density of food pantries in the city’s historic core. The map indicates a concentration of
pantries located close to the Chattahoochee River. There also seems to be a somewhat higher concentration of pantries in the area of the city that was developed up to the mid-twentieth century which can be most easily described as being located in a rough rectangle:

- east of the Chattahoochee River
- west of Interstate 185
- south of Highway 80
- north of Highway 27 (Victory Drive).

Almost two-thirds of the city’s pantries were located within this rectangle (30 of the 48 pantries or 62.5%). Eighteen sites were located outside this rectangle. Therefore there seems to be less accessibility in Columbus to the North and in the north-eastern panhandle. Fort Benning (a federal military installation) dominates the southern sector of Muscogee County and no food pantries are located there. Our next question was do pantries that are open weekly verses bi-weekly/monthly have a different distribution.

In analyzing the map the distribution of the 28 food pantries open weekly (Figure 2). The geographical distribution of pantries is reasonably even over the city. There is still a distinct concentration if pantries in city’s historic district (just north of Highway 27 and south of 13th Street). In contrast, in the map showing 18 pantries open bi-weekly or monthly (Figure 3) both weekly pantries and bi-weekly/monthly pantries are spread reasonably evenly over the city. However, there is a higher number within the older city defined by the Highway 80, Chattahoochee River, Victory Drive, and I-185 rectangle.
Figure 1: Food Pantries in Columbus, GA (2013)
Figure 2: Food Pantries Open Weekly, Columbus, GA (2013).
Figure 3: Food Pantries Open Bi-weekly and Monthly, Columbus GA (2013).
c. **Relationship between the location of pantries and median income**

In comparing the relationship of food pantries to median family income (Figure 4) the map indicates that pantries are often clustered in city regions who’s residents earn lower than the median income. Having examined the geographical distribution of pantries in relation to pantries that opened weekly, and pantries that opened monthly, and then mapping food pantries in relation to median household income, we then turned to the accessibility of food pantries in terms of days of the week and then times of the day. For this analysis students developed a series of histograms.
d. Food Accessibility by Days of the Week

To assess food accessibility in terms of the days of the week, we created three histograms to show the food accessibility for all food pantries, and then broke them down into those pantries who opened on a weekly schedule and those who were open bi-weekly and monthly. It should be noted that several pantries are open on multiple days of the week. In examining the “all food pantries” histogram (Figure 5) we can see that there is a reasonable spread over the first four days of the week, however, Friday through Sunday is generally lower. On any given day during the work week there are at least nine pantries open. Accessibility is at its greatest on Wednesdays, when 18 pantries are open, while there are only 2 open on Sunday.

Figure 6. Food Pantry Accessibility by Day of the Week for all Pantries.
Figure 7. Food Pantry Accessibility by Day of the Week for Pantries that open Weekly.

![Bar Chart](image)

Columbus Community Geography Center 2013

Figure 8. Food Pantry Accessibility by Day of the Week for Pantries that Open on a Biweekly or Monthly Schedule.

![Bar Chart](image)

Columbus Community Geography Center 2013
In examining the “weekly pantries” (Figure 6) we can see that a similar bias towards the first four days of the week is evident, with few weekly pantries open on Friday through Sunday. There is a distinct peak on Wednesdays. There is a slight reverse for the pantries that are open either bi-weekly or monthly (Figure 7) with the highest number being open on Saturday. There seems to be an interesting correlation between high rates of accessibility on Wednesdays (for weekly pantries) and Saturday accessibility for (bi-weekly and monthly pantries). Wednesday correlate with high activity days in the Christian church week in the community, Wednesday often being supper night.

\[\text{e. Food Pantry Accessibility by Time of Day}\]

Figure 9. Food Pantry Accessibility by Time of Day for All Pantries.
In exploring food accessibility in terms of time of day, we created three time periods:

- Opening sometime between 9AM and Noon
- Open somewhere between Noon-5PM, and,
- Open sometime after 5PM.
It should be noted that food pantries were usually open between 2 and 3 hour periods. Two food pantries in Columbus are open between 9AM to 5PM throughout the work week. In addition, there were a number of pantries that were open at times that crossed from one period to another, particular over the noon hour, or they might be open two different times after 5PM in one week. Those pantries have been counted twice in the following histograms. Forty-three pantries indicated the times they were accessible. Looking at the map indicating food accessibility by time of day for all pantries in Columbus (Figure 9) we see that there is little difference between those that are open somewhere between 9AM and noon, and those between noon and 5PM – 23 pantries were open in the morning and 26 in the afternoon. However, only 7 pantries were open after 5PM (18.6 %). In examining the histogram of weekly pantries (Figure 10), we see that there is a slight bias to morning accessibility, with a step drop in accessibility after 5PM. While in the histogram showing pantries opening on a bi-weekly or monthly schedule (Figure 11) we can see that there is a distinct bias towards opening in the afternoon, with only one pantry open after 5PM. To explore further the question of accessibility after 5PM we mapped those pantries open outside weekday business hours (Figure 12). Though the spread of 7 pantries is relatively even, it is notable that there are no food pantries located in the historic core of Columbus.
Figure 12. Food Pantry Accessibility after 5PM, Columbus GA (2013).
Conclusions

Almost 1 in 5 residents of Columbus, Georgia is in poverty. One of the organizations that play a central role in helping to meet community needs, *Feeding the Valley*, supports 48 food pantries in Columbus, GA. Sixty percent of the city’s pantries are open weekly, while 40% are open either bi-weekly or monthly. All pantries are hosted by religious organizations. There are no pantries housed by non-Christian faith organizations or secularly-aligned organizations.

Food pantries seem to be reasonably well distributed in the community, though there are few pantries north of Highway 80 (in the north of the community) and to the east of the city. There is a relatively high concentration of pantries in the city’s old historic district, and to a lesser extent in the inner ring of pantries that are located in the part of the city that was built out by the mid-twentieth century. There seems to be a reasonably close relationship between median income levels and the distribution of food pantries, with a higher number of pantries accessible in lower income sections of the city.

In analyzing accessibility in terms of days of the week, it is clear that the first three days of the week (Monday, Tuesday and Wednesday) are by far the most food pantry accessible days. There is a strong bias towards Wednesday accessibility. In terms of time of day, access between 9AM and 5PM is strong, however only a small minority of pantries open after 5PM (6 opened on a weekly schedule, 1 opened on a monthly schedule).
THE EMERGENCY FOOD ASSISTANCE PROGRAM (TEFAP)
HOUSEHOLD ELIGIBILITY CRITERIA FORM

Distribution Date __________________________ Distribution Site __________________________

Name: ____________________________________ Number of people in Household __________
Address: __________________________________ County _________________________________

Phone Number ______________________________

This table shows monthly and weekly income for each family size. If your household income is at or below the income listed for the number of people in your household, you are eligible to receive food.

<table>
<thead>
<tr>
<th>Household Size</th>
<th>Monthly Income</th>
<th>Weekly Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$ 1,211</td>
<td>$ 279</td>
</tr>
<tr>
<td>2</td>
<td>$ 1,640</td>
<td>$ 378</td>
</tr>
<tr>
<td>3</td>
<td>$ 2,069</td>
<td>$ 477</td>
</tr>
<tr>
<td>4</td>
<td>$ 2,498</td>
<td>$ 576</td>
</tr>
<tr>
<td>5</td>
<td>$ 2,927</td>
<td>$ 675</td>
</tr>
<tr>
<td>6</td>
<td>$ 3,356</td>
<td>$ 774</td>
</tr>
<tr>
<td>7</td>
<td>$ 3,785</td>
<td>$ 873</td>
</tr>
<tr>
<td>8</td>
<td>$ 4,214</td>
<td>$ 972</td>
</tr>
</tbody>
</table>

Each add’l member add $429 add $599

I certify that my gross household income is at or below the income listed on this form for households lives in the area served by the Georgia Emergency Food Assistances Program. This certification form is being completed in connection with the receipt of federal assistance.

______________________________ (Signature of Head of Household) ________________________________ (Date)

Authorized Representative:

I hereby authorize ___________________________ (Please Print)
To pick up food for my household.

__________________________________________ (Signature of Head of Household) ________________ Date

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Form 832 rev 08/11

For use from October 1, 2012 – September 30, 2013
List of Food Pantries

Uptown Outreach Ministries, Inc.
First Baptist Food Closet
St. James AME Church
Love In Action-Fourth Street Baptist
JMJ - St. Mark AME Church
The Potters House Christian Church
New Territory Outreach Ministry
First African Baptist Church – Crisis Closet
Benning Hills Baptist Church
Christian Fellowship Church
Walker Temple Church of God in Christ
American Red Cross of West Central Georgia
Grant Chapel AME Church
Mercy Med of Columbus
Bethel Tabernacle Assembly of God
Bread of Life Christian Center
Northside Chapel Church of God
Columbus Dream Center
Holy Transfiguration Orthodox Church
Living Way
Better Hope House of Deliverance
Pentecostal Deliverance Church, Inc.
Hilton Terrace Baptist Church
Wynnton Neighborhood Network
Gateway Church
Warm a Heart Outreach & Referral Center
Nazareth Baptist Church
New Testament Christian Center
Forrest Park Baptist Church
St. Anne Community Outreach
Move of God Ministries
M. L. Harris United Methodist
St. James Missionary Baptist
Iglesia De Dios Nuevo Pacto
Edgewood Assembly of God, Inc.
International Friendship Ministry
Columbus Revival Center
St. Mary's Road UMC
God's Provision Program, Inc.
St. James CME Church
Blessed Assurance Baptist Church
St. Paul A.M.E. / Paul's Pantry
New Bethel SDA Church
Salvation Army - Warm Springs Road
The Metropolitan House of Prayer, Inc.
Body of Christ Worship Center
Jesus Christ Is Lord Ministry
Calvary Chapel Columbus
References

